MAY 1957
UNIVERSITY OF MICHIGAN
MAY 21 1957
BUSINESS ADMINISTRATION LIBRARY

The Controller

A LOOK AHEAD
Roland A. Erickson

STATISTICAL TECHNIQUES FOR FINANCIAL PLANNING AND FORECASTING
Dr. Andrew Vazsonyi

RESPONSIBILITY AUDITING
A Supradimension of Management Control
William L. Campfield

Eastern Controllers Conference

ROCHESTER, N.Y.
MAY 16-18

60c | $6.00 A Year

University of Michigan
Gen'l. Library
Ann Arbor, Mich.
CA1
12/52
NOT FOR DISTRIBUTION

Friden Creates A New World For Business

WITH THE

Computyper®

YOU HAVE A COMPLETE

AUTOMATIC BILLING DEPARTMENT

IN A SINGLE DESK

for example—

The Friden Computyper delivers *complete* invoices at rate of 10 digits per second. Typist-operator enters only heading, quantity, unit price, etc. The Computyper figures extensions, additions, deductions and totals. Calculating and recording of calculations are automatic.

Inventory, cost analysis, sales distribution and other statistics are systemized similarly by the Computyper.

• Shown above is Model C Computyper, an IDP Tape-Talk (common language) machine with automatic tape-punch and reader. It produces and interprets punched tape or edge-punch cards, thus makes possible automatic transfer of data to punched cards or accounting records by other IDP machines. Also available: model B, without tape punch or reader. Set up a demonstration appointment with your nearby Friden Man.

Friden

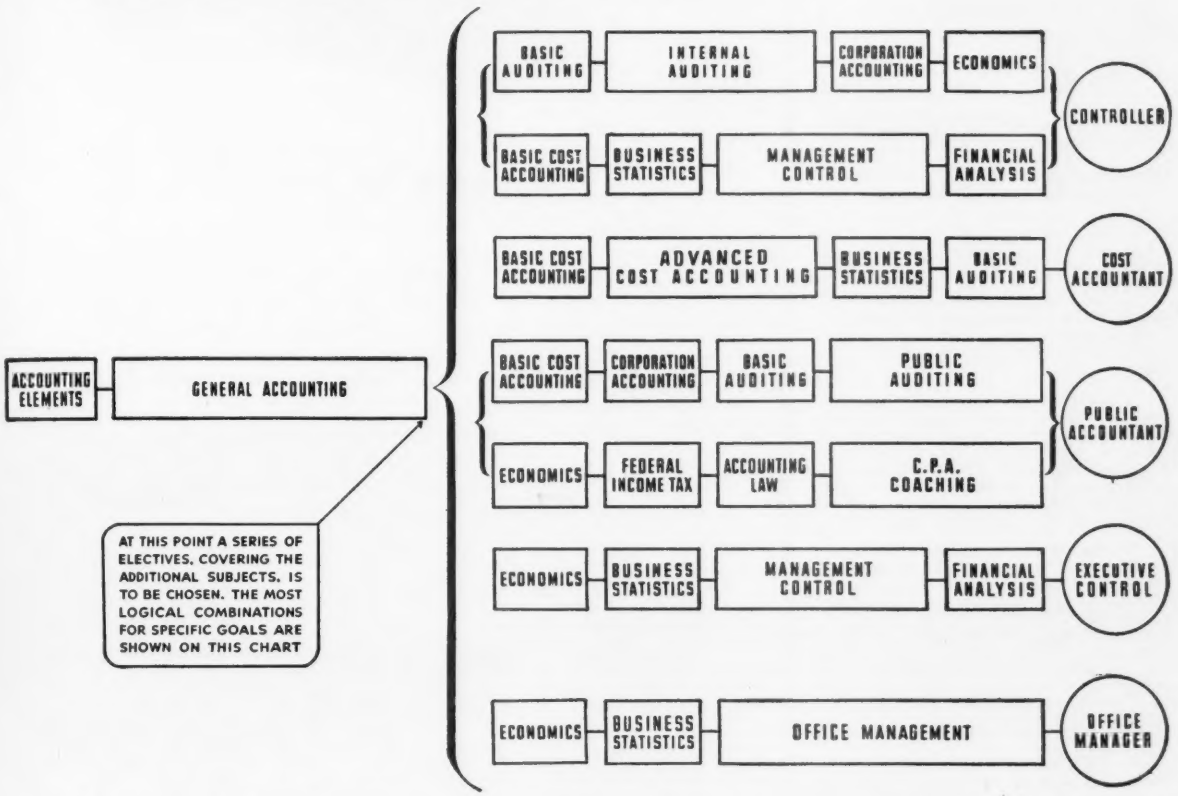
brings you an automatic office

© Friden Calculating Machine Co., Inc., San Leandro, California . . . sales, instruction, service throughout U.S. and world. Commercial Controls Corporation, Rochester, N.Y., Subsidiary.

GRAPHIC OUTLINE OF THE IAS COURSE

To prepare each student for* his *specific vocational objective, IAS offers an elective program covering a wide range of accounting and allied subjects.

A thorough foundation in Accounting Elements and General Accounting is acquired through completion of the first 40 assignments. The student then selects from the electives* shown on the chart those leading to his immediate job-objective.



**An elective consists of 10, 20, or 30 comprehensive study assignments, as indicated by the length of the bar on the chart.*

Thus the IAS elective program enables the student to progress directly to his specific goal. Then, through the Life Scholarship Privilege earned by each Diploma Course (90 assignments) Graduate, the IAS student can broaden his knowledge of accounting and management through study of any, or all, of the other electives, at no additional cost.

The school's 24-page catalogue is available free upon request. Address your card or letter to the Secretary, IAS, at the address below.

INTERNATIONAL ACCOUNTANTS SOCIETY, INC.

A Correspondence School Since 1903

209 WEST JACKSON BOULEVARD • CHICAGO 6, ILLINOIS

PAUL HAASE, Editor

BENJAMIN R. MAKELA
Publication Manager

CEIL SMITH THAYER
Assistant Editor

JOHN A. MURPHY
Advertising Manager

Editorial material in THE CONTROLLER is selected in accordance with the following:

CONCEPT OF MODERN CONTROLLERSHIP
of Controllers Institute of America

1. To establish, coordinate and maintain through authorized management, an integrated plan for the control of operations. Such a plan would provide, to the extent required in the business, cost standards, expense budgets, sales forecasts, profit planning, and programs for capital investment and financing, together with the necessary procedures to effectuate the plan.

2. To measure performance against approved operating plans and standards, and to report and interpret the results of operations to all levels of management. This function includes the design, installation and maintenance of accounting and cost systems and records, the determination of accounting policy and the compilation of statistical records as required.

3. To measure and report on the validity of the objectives of the business and on the effectiveness of its policies, organization structure and procedures in attaining those objectives. This includes consulting with all segments of management responsible for policy or action concerning any phase of the operation of the business as it relates to the performance of this function.

4. To report to government agencies, as required, and to supervise all matters relating to taxes.

5. To interpret and report on the effect of external influences on the attainment of the objectives of the business. This function includes the continuous appraisal of economic and social forces and of governmental influences as they affect the operations of the business.

6. To provide protection for the assets of the business. This function includes establishing and maintaining adequate internal control and auditing, and assuring proper insurance coverage.

Member
Audit Bureau
of Circulations

Member
Magazine Publishers
Association, Inc.

The Controller

Contents for May 1957

FEATURES Page

A LOOK AHEAD—An analysis of the basic reasons for "the dynamic fifties"—Roland A. Erickson 211

STATISTICAL TECHNIQUES FOR FINANCIAL PLANNING AND FORECASTING—A statistical method of accounting to save clerical work and sharpen planning—Dr. Andrew Vazsonyi . . . 216

RESPONSIBILITY AUDITING: A SUPRADIMENSION OF MANAGEMENT CONTROL—The conceptional framework for auditing the over-all responsibility of management—William L. Campfield 225

NEW DIRECTORS—CONTROLLERS INSTITUTE 238

DEPARTMENTS

CORRESPONDENCE 204

SCANNING THE SCENE—Paul Haase 209

WASHINGTON NEWS—Benjamin R. Makela 230

DATES AHEAD 232

PAGING THE NEW BOOKS 242

BUSINESS FORECASTING IN PRACTICE
Reviewed by Benjamin Caplan

RESEARCH NOTES 254

PERSONAL NOTES 256

OPPORTUNITIES 260

THE CONTROLLER. Published monthly by Controllers Institute of America, Inc. Publication office, 73 Main Street, Brattleboro, Vermont. Editorial office, Two Park Avenue, New York 16, N. Y.

Entered as second class matter at the post office, Brattleboro, Vt., September 1, 1937, under the act of March 3, 1879. Subscription $6.00 a year. 2 years $10.00. Single copy 60c. Orders from nonmembers of CIA outside Continental U. S. and Canada must be accompanied by remittance. Address subscriptions (and notices of change in mailing address) to the Circulation Manager care of the New York office. Advertising rate card available upon request to the Advertising Manager.

Change of address should be sent before the first of month preceding the issue to be changed.

The editor will be pleased to review manuscripts submitted for publication, but will not be responsible for loss in transit or otherwise. The views expressed in the various articles are those of the authors and not necessarily those of Controllers Institute of America. Printed in U. S. A.

 Copyright 1957 Controllers Institute of America, Inc.

X.UM

How can this sock reduce your typing costs?

SEE that sock? It weighs only two ounces. And that's all it takes to press down one key on the new Royal Electric. It's the softest touch in typing!

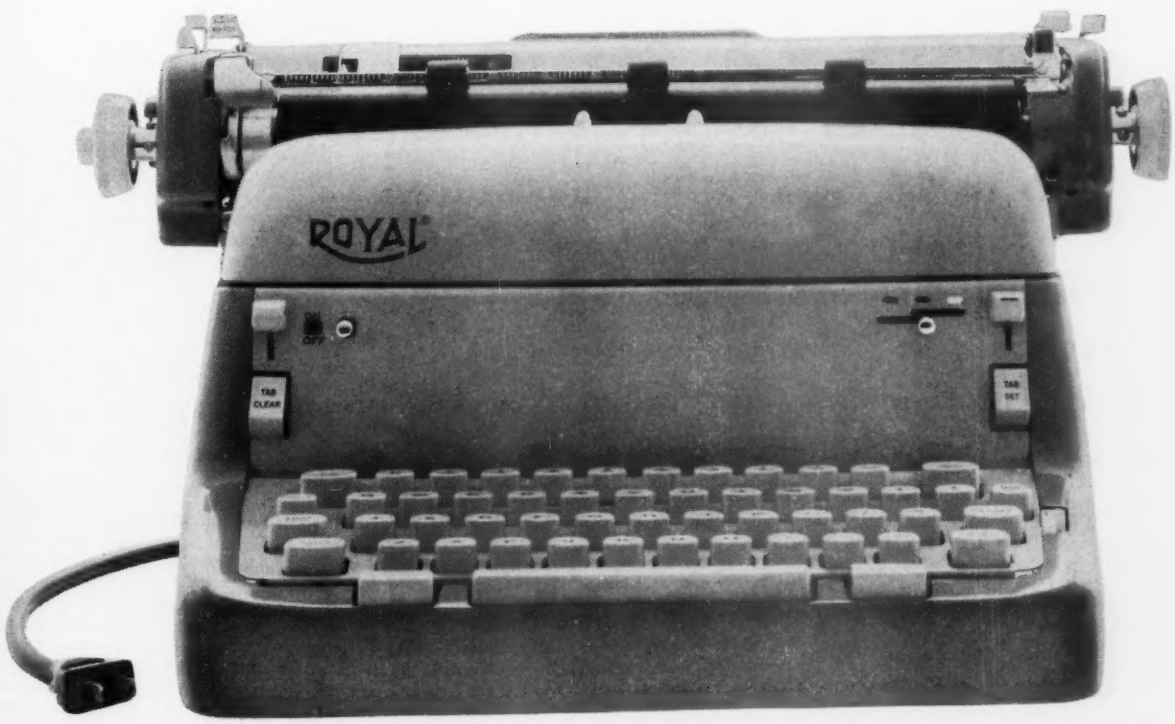
It takes only *three ounces* to depress the carriage return key. Fact is, the new Royal Electric is *13 times easier to operate* than a non-electric typewriter.

And thereby hangs a long list of savings you tuck away every time your secretary performs at the new Royal Electric. Because lighter work means *faster work...more work...better-looking work.*

Happier secretary! Happier you, too, when you see the letters—crisp and clean with that sparkling "book look."

Why not call in your local Royal Representative? A little office demonstration should provide the final convincer.

ROYAL® *electric · standard · portable · Roytype® business supplies*



Products of Royal McBee Corporation—World's Largest Manufacturer of Typewriters

Correspondence

EVALUATION OF VIEWS

Editors, THE CONTROLLER:

I would like to voice appreciation and enthusiasm for the article by Frederick J. Muth, "An Evaluation of Direct Costing," published in the February 1957 issue of THE CONTROLLER. The acceptance and advantages of this method are discussed in a manner as to stimulate an interest or reinterest in this costing technique.

The criticism which is offered herewith is most unusual since it seems to me that it is not entirely correct to say, as Mr. Muth has said, that direct costing is not applicable to certain types of industry, namely, "those businesses where production and sales vary widely with the seasons and those where the chief products are large individual units produced and sold on a contract basis."

Some time ago representatives of one of the country's large can companies stated that they were not satisfied with their statement of results of operations prepared on the basis of absorption costs. The business was highly seasonal. This can company has since adopted the direct costing technique. Our own company, where the chief products are large individual units produced and sold on a contract basis, changed to direct costing at the end of 1953, and we feel it was a beneficial change. Marginal income is now reflected in our final summary of the results of each contract and also in total in our financial statements. This figure is important to us in our price determination. Volume variance no longer influences the pricing of our year-end inventory. Since it is unreasonable for us to expect a customer to pay a higher price for our product in a year of low activity, we do not feel that inventories should be increased in value as a result of a year of low activity.

Again I wish to commend Mr. Muth on his evaluation of direct costing.

ROGER N. GIFFORD
The Van Dorn Iron Works Company
Cleveland, Ohio

ITEM COSTING IN RETAIL MERCHANDISING

Editors, THE CONTROLLER:

Your report of the NRDGA recommendations on item costing, page 198 of the April issue of THE CONTROLLER was extremely interesting, but it is difficult to follow without charts. Is there any way in which the complete text and charts may be obtained?

G. L. W.
New York

Space limitations prevented us from carrying the full text of Robert I. Jones' address. The complete text, with illustrations, has been printed in booklet form and may be obtained, free of charge, from Controllers' Congress, NRDGA, 100 West 31st Street, New York 1, N. Y. —The Editors

FABULOUS!

Editors, THE CONTROLLER:

My associates have suggested that the enclosed "fable" might be suitable for publication in the pages of THE CONTROLLER. We have used this article within a national corporation to help drive home a point and feel that it may have a lesson for others, too.

PHILIP H. THURSTON
Bronxville, N. Y.

THE FABLE OF THE DIVISION MANAGER AND THE GIANT ELECTRONIC MACHINE

Once upon a time there was a division manager who felt that he just had to have a giant electronic data-processing machine because everyone else was getting one (as a major cure for many problems), and it was practically worth your job not to be marching on the right side of the street. But this division manager also knew that he could hire only six procedures men and could not afford the price of or find even one red-hot computer specialist. This was not enough procedures manpower to set up a computer and also do important "grass roots" procedures work throughout the division. He had problems.

But this division manager was smarter than you might think. He selected a medium-priced machine that cost him only $200,000 for its yearly rental; he added another $150,000 to put it in a beautiful air-conditioned office; and then he hired two girls. One was a real doll with a wonderful personality to smile at the swarms of visitors. The other wore glasses and had straight hair, and she kept the tapes zipping back and forth and the lights flashing. They both were sworn to secrecy that the machine was doing no real work. *(Continued on page 206)*

F B&D

Depreciation and Depletion Studies
Valuations and Appraisals
Organization and Business Reports
Securities Registration Investigations
Design and Construction
Industrial Engineering

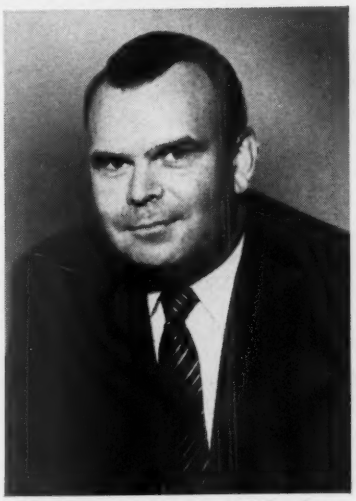
Ford, Bacon & Davis
Engineers

39 BROADWAY, NEW YORK 6, N. Y.
CHICAGO · LOS ANGELES

ONE OF THE MANY ATTRACTIVE, modern housing units planned and built by the Centex Construction Company.

FAST GROWTH of this company is the talk of the industry.

COMBINED OPERATION. Customers' accounts, company records, and payroll are posted on this National "31".



ROBERT G. ROWE, Treasurer of the above company.

"Our *National* System saves us $7,740 a year... pays for itself every 11 months!"

—Centex Construction Company, *Dallas, Texas*

"In 1950 we built 300 homes, in 1955 over 4000—with this tremendous expansion we *had* to have an efficient accounting system!" writes Robert G. Rowe, Treasurer of the Centex Construction Co. "Our National System is all of that and more. It saves us over $7,740 a year!

"We use a National 'Class 31' for all our payroll and Labor Distribution accounting. The speed and efficiency of this arrangement has enabled us to eliminate the cost of an outside Service Bureau, a saving of $335 a month, and we realize a savings in personnel costs of $145 each month.

"Our National System keeps our records always up-to-date and gives us better information in less time. This makes auditing easier and less expensive—another significant cost reduction. Taking all these savings together, our National System pays for itself every 11 months!"

Robert G. Rowe

Treasurer, Centex Construction Company, Inc.

Here is an opportunity to cut costs and increase profits in your business operation. A National System will quickly pay for itself through savings, then continue returning these savings as extra yearly profit. Call your nearby National representative—a trained systems analyst. He's listed in the yellow pages of your phone book.

THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio

989 OFFICES IN 94 COUNTRIES

®TRADE MARK REG. U. S. PAT. OFF.

National®

ACCOUNTING MACHINES

ADDING MACHINES • CASH REGISTERS

Forthcoming Features

IN THE CONTROLLER

★ **RETURN ON INVESTMENT AS A MEASUREMENT OF MANAGEMENT EFFICIENCY**
by H. O. Edson

★ **PUSH-BUTTON EXPENSE DISTRIBUTION**
by Munro Corbin

★ **OPERATIONS RESEARCH FOR THE BUSINESSMAN**
by Clark Sloat

Meanwhile, back in the procedures office, the six procedures men were told to forget about the machine. The division manager both breathed fire behind them to get hot on conventional procedures work and gave them a lot of help throughout the organization. In the course of three years these six procedures men, without regard to the machine:

Installed a drawing number system to grow on that had fixed-field, numeric numbers.

With the engineers, worked on standardization and identification of product components.

Installed an integrated system that took the engineers' output and, using punched cards, wrote pre-costed material lists for cost and manufacturing and supplied the punched cards needed in manufacturing to assign stock and place orders on contributing sections.

Installed pre-punched card shop vouchers.

Installed a machine load calculation for the machine shop using conventional punched card equipment.

Installed a "same day" renewal parts warehouse system and improved the warehouse stock control picture.

The same division manager proposed that several divisions pool resources to develop systems for electronic data-processing machines. He even offered, with a straight face, to make room on his $200,000 machine to do development work in electronic procedures. But he quickly shut up when the other division managers said, "We aren't at the *development* stage. Just year after next we're going to be fully integrated on a Seven-O-Ten."

And these same other division managers sent most of their procedures men to electronic business machine schools and then had them work with Operations Research men in windowless rooms. Their remaining procedures men were fully occupied with forms control, furniture standardization, and office service duties.

* * *

Of course, a fable is just a story, and you can read nothing or anything into it you wish. We do know that gross exaggeration has been used for effect; that the division manager doesn't exist, and unfortunately, neither does the real doll with the wonderful personality.

But for those of you who care to read on, these are the specific judgments of the author.

* * *

The large electronic machines offer us: Much faster computing speeds; faster data handling within the machine system; greatly increased storage within the machine system (including drums, disks, and tapes); and ability to progress through many data-processing steps without human intervention. These new machines can be economically employed only when one or a combination of these elements is a limiting condition in the application of lower-capacity equipment.

But in fact, *the important limiting condition at present to vastly improved data handling is in the design and installation of conventional procedures.* If you can't afford a strong procedures force working on conventional procedures problems, then you certainly can't afford a big expenditure on faster and bigger data handling within a machine system.

Any company should measure its progress toward the use of electronic business machines, not in terms of the number of machines on order, but in terms of trained personnel and in terms of development work to design electronic procedures for its own business. The electronic procedures development work should resemble laboratory work. Many false starts are to be expected; and the laboratory output should be tested within reason before it is placed in production.

Those of us who write this way don't oppose electronic machines. We are saying that the key to our problems—the place where most of our money should be spent—usually lies elsewhere.

UH-HUH

Editors, THE CONTROLLER:

In the April issue of THE CONTROLLER I read the announcement of the retirement of J. C. Anderson as comptroller of Standard Oil Company (New Jersey). The same day I noticed in the syndicated column of H. I. Phillips the following item which I thought you might like to mention in your Correspondence page:

> . . . James C. Anderson is retiring after being with Standard Oil of New Jersey for 50 years. . . . (That's a long time to go without changing your oil.)

T.C.

American Appraisals speed up loss adjustment

The adjuster knows that figures in an American Appraisal report are fair to all concerned, because they are always based on detailed evidence and experienced judgment.

The AMERICAN APPRAISAL Company

leader in property valuation

HOME OFFICE: MILWAUKEE 1, WIS.

Scanning the Scene

Prosperity's Prophets . . . and Profits

Some three decades ago, there were heard throughout the land the voices of the soothsayers assuring us that economic panics and depressions of a major order were things of the past. Then came the historic events of late 1929—and the "years of the locust" through most of the decade of the 30's.

As we entered 1957, the economic pronouncements and forecasts all shared a high degree of optimism. Can we assume that serious reactions are forever behind us? In this issue, we carry a stimulating review of the past decade's economic trend and a forecast of what can be anticipated during the remainder of the 50's. The views of the author, Roland A. Erickson, deserve careful consideration by corporate controllers and financial officers. As Mr. Erickson says:

"The American businessman has advanced a long way during the past ten years in understanding how his individual decisions affect the business cycle. The real test, however, is ahead of us. . . . Can the very dynamic capital goods cycle be maintained at a high plateau without having it peak out in a classical economic adjustment pattern?"

His views add pertinence to recent observations by George W. Coleman, economist for the Mercantile Trust Company of St. Louis, who pointed out that despite today's high level of economic activity "there are indications that profit margins are declining.

"Money rates, though low by historical standards, are high in terms of experience over the last two decades," he said. "There are only a few depressed industries, although agriculture is in a depressed state."

Corporate profits, he said, in the third quarter of 1956 were estimated at an annual rate of $40 billion—$20 billion less than in the second quarter and $3.5 billion under the third quarter of 1955.

"It would appear that the next year will be characterized by a loss of momentum in the economic factors that have been expanding, and the contradictory forces will slowly exert greater influence," he said.

Accounting for Shakespeare

Was Shakespeare a principal forerunner of the modern accountant? Although some have thought that the immortal bard was a lawyer named Francis Bacon, there is internal evidence strongly suggesting that Shakespeare was an accountant. This point was pleasantly advocated by Derek Lukin Johnston, a Canadian Chartered Accountant, who first presented it on a radio talk over the Canadian Broadcasting Company in the fall of 1954. It was subsequently published in *The Canadian Chartered Accountant* and has finally reached our editorial sanctum—somewhat belated but most welcome!

And now, to the "evidence" as developed by Mr. Johnston, who observed that the most casual reading of Shakespeare's works show them to "abound with references to audits, accounts and taxation." For example:

From *Hamlet*—"And how his audit stands who knows save heaven?"

From *Othello*—"To vouch this, is no proof
Without more wider and more overt test."

From *Much Ado About Nothing*—"You tax Signior Benedick too much," which is, in Mr. Johnston's view, "an obvious literary sequel to the author's appearance, on behalf of a client, before an Elizabethan income tax appeal board!"

Mr. Johnston presents an interesting case in the course of his observations which space limitation prevents us from quoting in full. He concludes with these lines:

"My case for Shakespeare the accountant rests, and I submit it confidently to the audience in the words of Flavius, the steward, to his master Timon of Athens, in Act II,

> "If you suspect my husbandry of falsehood,
> Call me before the exactest auditors
> And set me on the proof."

Rights Raise Funds

More than $2 billion were raised by companies listed on the New York Stock Exchange in the past two years by offering common stockholders rights to buy additional shares. The official magazine published by the New York Stock Exchange recently reported that during the two-year period, "Big Board" companies had offered their stockholders rights to purchase nearly 50 million additional shares. In 1956 alone, it was noted, 41 listed corporations raised $1.1 billion by offering common stockholders rights to buy some 24 million additional shares.

In the two years the companies that raised the largest sums were: American Telephone & Telegraph Co., $560 million; Pacific Telephone & Telegraph Co., $156 million; Sperry Rand Corp., $52.7 million; North American Aviation Corp., $43.5 million, and Pacific Gas & Electric Co., $36.6 million.

"Compt" vs "Cont"—Again

Some time having passed since we last discussed the subject of spelling in this column, we were pleased to note in the newly published "Dictionary of American-English Usage" (Oxford University Press, New York) that the "true gospel" is upheld as follows:

"COMPTROLLER, CONT-. Both pronounced kŏntrōl"er. The first spelling is erroneous, being due to false association with *count* (Fr. *conter* from L. *computare*), but is retained in certain official titles." —PAUL HAASE

UNIVAC® FILE-COMPUTER PROFIT-WINNER FOR BUSINESS!

Great electronics news for all profit-minded businessmen! Those who have witnessed the stellar performance of the UNIVAC File-Computer know how it handles billing, inventory, and sales analysis as a single operation. They know, too, how this REMINGTON RAND® computer brings a greater degree of automation to business routines than has ever before been possible. For the UNIVAC File-Computer introduces two great innovations to the field of business data-processing:

1—Random Access. Hundreds of thousands of business facts are directly accessible . . . can be processed faster than by any comparable system. No sorting or collating necessary.

2—One-Shot Paperwork. The File-Computer can process several problems *simultaneously*. As a result, many of your most difficult management control problems are solved as automatic by-products of your routine accounting.

Learn how the UNIVAC File-Computer can up-date your business recordkeeping to bring greater speed and efficiency to every phase of your operations. Call your local Remington Rand office or write for TM1090: Room 1521, 315 Fourth Avenue, New York 10, N.Y.

Remington Rand Univac
DIVISION OF SPERRY RAND CORPORATION

Makers of: Univac I • Univac II • Univac Scientific • Univac File-Computer • Univac 60 • Univac 120 • Univac High-Speed Printer

A Look Ahead

Roland A. Erickson

An analysis of the basic reasons for the "dynamic fifties"

TRULY IT MAY BE SAID that, in terms of fundamentals, there has been created a new look everywhere in this country during the "dynamic fifties." A purely statistical review of what is expected in 1957 is not in order because we were all literally deluged with expert opinion on "what next year will bring." Actually, my contribution will be in the area of analyzing what has happened in America in the past in order to better understand what the probabilities are not only in 1957 but also during the balance of the decade.

More and more American corporations and their controllers are working on long-term programs of personnel planning, capital expenditure scheduling, and financing. Hence, it is in the area of the longer look that we have our major problems. I shall emphasize the basic importance of recognizing fully both the limits of plant expansion and new equipment buying that the American economy can afford as well as the major significance of the peaking out of a capital goods cycle. I know of no professional group which is better prepared or more strategically situated within a company than controllers to exercise real statesmanship both for the good of the economy and their own companies. Four years ago I made a plea* for improved cost and budget consciousness throughout American industry; now I make a plea for better understanding of the benefits to be derived from controlling the capital goods budgets in your own companies so as to help avoid serious correction periods in the future.

Today we can report an economy operating within 6% of theoretical capacity in terms of physical output as measured by the Federal Reserve Board Index of Industrial Production, following the biggest production year in our history. (Capacity is probably 154 on the Index—February 1957 was 146.) An economy which, during 1956 averaged 143 on this Index in spite of an approximate 25% decline in automobile production and a 17% decline in housing starts. (*Chart I.*) Never before in modern American history has our nation been able to absorb a major adjustment in the all-important automotive industry without its resulting in a chain reaction leading at least to an 18-month recession. For the first time in our history, the body economic was able to have a head cold without its leading to pneumonia.

How can we explain this unusual economic phenomenon?

Basically, it can be credited to the rising cycle of capital goods expenditures during 1956 with all its concomitant stimulating influences.

WHAT IS THE PROBLEM?

The year 1957 has been variously forecasted, in terms of the Federal Reserve Board Index of Industrial Production, from an increase of 5% to a slight drop of 5% compared with 1956. It is obvious that the most optimistic expectations in terms of physical output for the year must be limited to about an 8% increase simply because of the physical limits of plant capacity and available workers. Therein lies our problem. (This statement, of course, assumes a nonwar economy and maintenance of the usual 40-hour week.)

Can an economy roll along at full employment and peak utilization of plant capacity for several years without generating dangerous inflationary forces and speculative fevers that will eventually lead to a major recession?

Will future adjustments be as mild as the ones experienced in 1949 and 1954?

Can there be a major adjustment within two basic industries such as occurred in 1956 without leading to a chain reaction?

Will such an adjustment be made in 1957?

More important than a specific prediction of over-all business for this year is to recognize the ingredients of today's boom and to understand their full implications.

PERIOD—1946 TO 1952

In 1946, there was no question but what business was entering a five-to-six-year long-term volume build-up based on the following forces:

1. A pent-up consumer and industrial demand created by wartime scarcities and accumulated purchasing power.
2. The emergence of the United States as a world power—always a stimulating

ROLAND A. ERICKSON was an instructor in economics for two years at Tufts College before joining Norton Company, Worcester, Mass., where he served as economist and consulting economist for 10 years. He joined Guaranty Bank & Trust Company, also in Worcester, as vice president in 1941, became vice president and treasurer in 1945 and president in 1947. He is a member of the American Economic Association, the American Institute of Management, and past president of the Massachusetts Bankers Association.

* Before the Boston Control of Controllers Institute of America and adapted for publication in the February 1953 issue of THE CONTROLLER under the title of "In '53: Controllers Have a Job to Do!"

force for a generation or two for the country involved.

3. The high rate of family and household formation.

4. The over-all scientific and psychological stimulation that was generated by World War II and the increasing productivity per man-hour that followed.

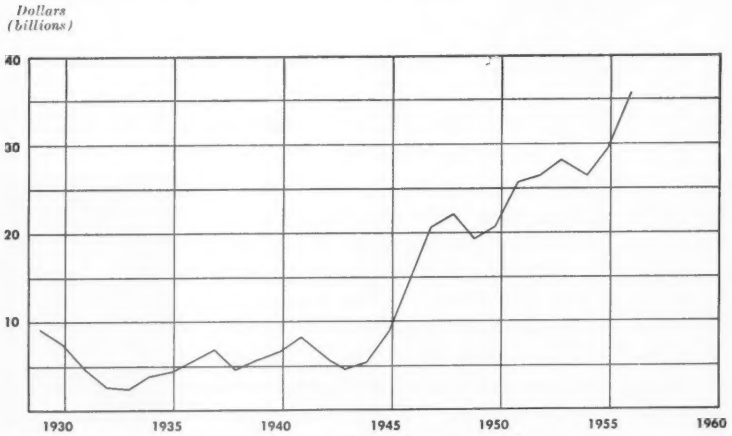
With basic forces of this type, the long-term trend was so strong that any interruptions would be of very short duration, and then only due to any temporarily excessive inventory accumulation or consumer indigestion. Such a situation occurred in 1949 and was very mild. (—7%.) (*Chart I.*)

The Korean War in 1950 brought another demand for war goods. More basically it forced the United States into accepting the fact that it was now a world power and it had to assume the "policing role" formerly discharged by Great Britain. This meant the acceptance of a large military budget for the indefinite future ($40 billion a year currently).

CHART I INDUSTRIAL PRODUCTION FEDERAL RESERVE INDEX AND WHOLESALE PRICES

Source: *Federal Reserve Board, Bureau of Labor Statistics*

CHART II BUSINESS EXPENDITURES FOR NEW PLANT AND EQUIPMENT



Source: *Securities and Exchange Commission and U. S. Department of Commerce*

THE DYNAMIC FIFTIES

The termination of the Korean hostilities led to the period of 1952-1956 which has been so dynamic that it has given rise to the term "the dynamic fifties." Dynamic because it has been characterized by a dramatic ever-rising expansion program of American industry for new plant and equipment and there is nothing more dynamic in an economic society than the expenditure of funds for that purpose. (*Chart II*—Steady rise from 1946 of $15 billion to $35 billion in 1956.)

Why have we had this expansion program?

Basically, there are four factors:

1. The continued stimulation of being a world power plus the recognition of what the long-term high military budget means.

2. In the period 1946-1950, a few leading companies showed what happened when their managements were bold and imaginative in the areas both of research spending and capital spending. The example of these leaders fired the imagination of industrial and commercial statesmen the country over into a widespread adoption of substantially increased research programs and the replacement and expansion of plant and equipment.

3. This development was further accelerated because there was something about the Eisenhower Administration that inspired the business leaders of this country with the desire to accomplish great things and to have the confidence that new plants and new equipment would be a dividend-paying investment. In other words, a spirit of initiative in private enterprise was reborn and, although it is hard to measure, that rebirth has been one of the very fundamental forces behind the industrial expansion.

4. A continued high rate of family formation combined with a rapidly rising disposable income and consumer debt assured a strong market for consumer goods. (*Chart III.*)

(Total consumer debt $22.6 billion in 1951; today—$41.9 billion.)

(Total disposable income $226.1 billion in 1951; today—$286.7 billion.)

THE YEAR 1956

Let us examine some of the foregoing fundamentals at the present time. The 1956 boom was sustained by a $6.5 billion increase in inventories. Far more significant, however, has been the capital goods expansion that climbed throughout the year and reached in the fourth quarter the heretofore unheard of annual rate of over $38 billion. This is $13 billion over the first quarter of 1955 or slightly more than a 50% increase.

Just how much is this $38 billion?

It is more than twice the dollar value of the total output of our giant automo-

tive industry in a peak year. It just about equals the total national budget for defense during 1956. Just think of it. Private investors in this country, through their corporate managements, have been spending for new plant and equipment amounts that exceed by 100% the value of seven and one half million to eight million cars and trucks. And then let us not forget the observation made earlier that dollars spent by private enterprise for new plant and equipment are extremely dynamic dollars. It can be said that these dollars affect the economy in a geometric way as contrasted to an arithmetic way for the consumer dollar. Therein, however, lies the potential problem for the immediate future.

Will this rate of expenditure for new plant and equipment continue in 1957?

Will inventories continue to rise, hold steady, or decline?

What about the basic effect of family and household formations?

After ten years of continuous boom, how are profit margins faring?

For the first time since World War II, the business outlook is being affected by a combination of conditions that is much more basic than have heretofore faced the American businessman. It is no longer just a question of temporary consumer indigestion or building of inventory. There are some basic factors at work that have to be evaluated.

ARE WE HEADING INTO TROUBLE?

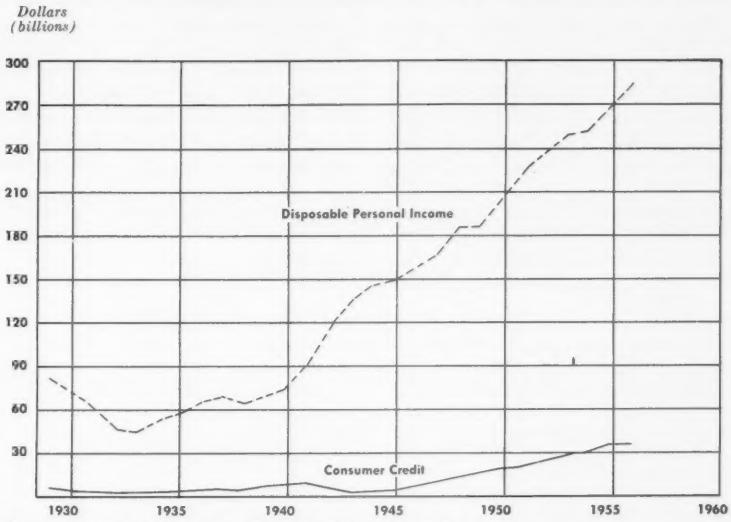
The capital goods expansion is being questioned today on two fronts:

1. *Are we expanding too fast in terms of the ability of the economy to provide funds? If so, will it lead to an inflation that will feed on itself and then dramatically collapse?*
2. *Is the expansion exceeding the needs of the nation? If so, will it generate an excess capacity problem with all the concomitant disagreeableness of competitive price cutting, inventory build-ups, and slashing of expansion programs?*

If the capital goods expansion is excessive, the necessary corrective measures will be more severe than the minor adjustments for the 1949 and 1954 inventory situations. To the same extent that capital goods spending has a multiplier effect on the rise, it has a similar impact in reverse during the decline. When a capital goods cycle peaks out, it tends to have serious economic consequences.

There were indications that the rate of capital goods expansion in 1956 was becoming excessive in terms of available savings, and that underlies the decision of the Federal Reserve Board to permit the natural forces of demand and supply for funds to bid up the rates of money. Let us not forget that the present so-called tight money market has not been created by either the banks or the Federal Reserve Board. Tight money is a reflection of market forces when demand for funds exceeds their availability. The Federal Reserve Board is simply permitting market forces to establish the so-called selling price of money.

CHART III DISPOSABLE PERSONAL INCOME AND CONSUMER CREDIT



Source: *Department of Commerce Estimates, Federal Reserve Board*

I believe that they have been 100% right in their decisions. After all, we were operating within 6% of our theoretical capacity and we had reduced unemployment to a residual amount of about two million. If the Board had moved to artificially expand credit, it would have simply provided the dollars to bid up the price of a fixed supply of commodities without in any way increasing the total products available for either industry or the consumer. This would have led to a spiralling price inflation which would have created a speculative, unhealthy churning around of bidders for a limited supply of goods. This danger is not yet behind us although it seems to be under good control.

Fundamentally, to avoid inflation, we cannot spend in physical terms more than we create or have accumulated in the form of real savings! Money in circulation by itself is not wealth—it is its purchasing power that is important.

I hope you will forgive a banker if he takes just a moment to very frankly put in a plug on this question of the money market. The cost of money is basically related to the rediscount rate established by the 12 Federal Reserve Banks in the nation. The rediscount rate today is 3%. That is the price the banks pay if they temporarily borrow at the Federal Reserve Bank, and most large money center banks have been borrowing quite regularly during this year.

The minimum rate in the American money market was 3% until the adoption of the Keynesian depression philosophy of 1933. From 1913 to 1933, the rediscount rate, which sets the money rate pattern, fluctuated between 3% and 7%. It was only by complete control exercised on a national level and maintained there by the exigencies of World War II that the rediscount rate got down to the low figure of one half of 1%. The policy is partly responsible for the postwar inflation and has had a direct effect on the inadequate accumulation of savings available for investment.

Let's face it! The rediscount rate today is the lowest price that was in effect during the 1913 to 1933 period. The rediscount rate in England today is 5% compared to our 3%. Actually, the present 3% rediscount rate viewed historically is not a high rate but an average one.

Let us explore for a minute the second possible problem related to this capital goods expansion:

Are we facing excessive capacity?

Certainly if one listens to spokesmen for the paper, gypsum, or aluminum industries, he gets an impression that there will be overcapacity in the coming few years. On the other hand, those very same spokesmen for their own companies, are planning and executing basic expansion moves for their own capacities.

Do they really believe that there is excessive capacity, or are their statements made to scare off competitors' expansion?

In other industries, such as steel, there is still talk of shortages. Probably the most dramatic statement in this direction was the forecast by Charles L. Huston, Jr., president of Lukens Steel, that there will be a shortage of heavy steel plate for five years. In the steel industry during October and November 1956 plans were filed with the Office of Defense Mobilization providing for expansion projects of $1.3 billion. According to *Steel* magazine, in the period 1956 to 1960, there will be added 23.6 million tons of capacity costing $6.3 billion. This is an increase in physical capacity of about 20%. *(Chart IV.)*

A firm such as Caterpiller Tractor is planning to spend $190 million in the next three years for new plant and equipment, which is an amount that just equals the gross cost of present plant and equipment on their books today. The officials of the American Telephone and Telegraph Company have announced that the over-all Bell System will spend $2.5 billion for new plant and equipment in 1957.

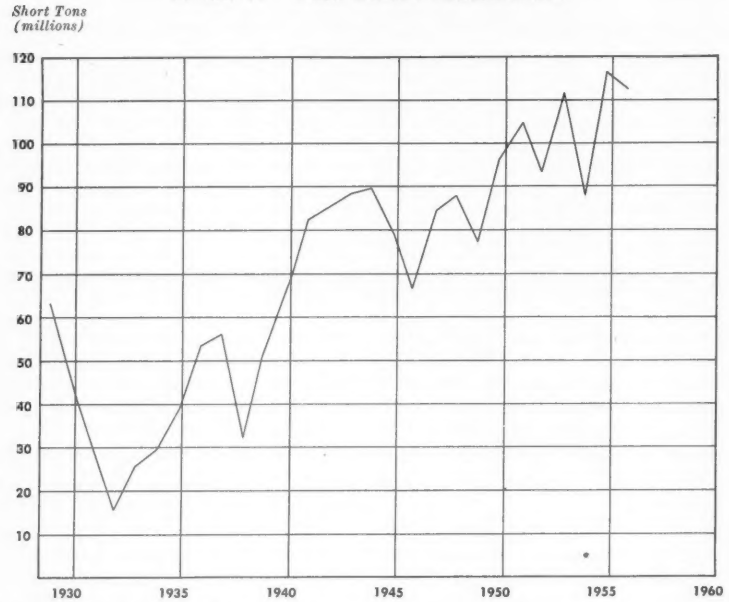
In as mature an industry as the automotive field, new analyses seem to suggest much higher levels of expected output in the next five to ten years than had been previously assumed. *(Chart V.)* There was a very penetrating analysis of this industry in the November 1956 issue of *Fortune*. Among other things, it pointed out that:

1. In terms of obsolescence and scrapping alone, there will be needed an average of four and one-half million new cars a year during the next four years and that in 1961, scrapping will consume five million cars annually.
2. The number of people who have bought cars for the first time in the past four years has reached the abnormally high figure of 10.3 million. Just think of it. Ten and three-tenths million people who never owned a car before are now going to be potential buyers of new models.
3. In the three years 1953 to 1956, the proportion of spending units owning two cars rose from 5% to 9%, an 80% rate of gain.
4. *Fortune* concluded that 1957 would see a car-year of from six and one-half million to seven million cars, an increase of 10% to 16% over 1956, and more importantly, that in the four-year period 1957 to 1961, auto sales will average seven million cars. If we are going to average seven million cars, there must be eight million car-years.

During the 1956 elections on a state and local level, the voters cast their ballots for projects that will cost $2 billion to complete. The $50 billion federal road building program is, of course, under way and has years to run. The present situation in the Middle East certainly militates against any decrease in defense budgets, although the tense international situation may be slowing up some expansion programs of American industry.

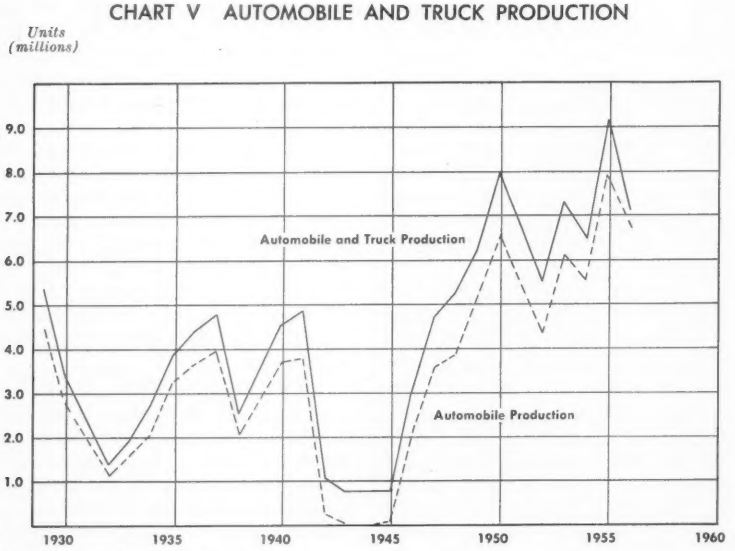
If we are getting excessive capacity in some industries, apparently we are not going to scuttle our programs because of a fear of too much capacity at least during the year 1957. A joint report by the Department of Commerce and the Securities and Exchange Commission published in March 1957 predicts that capital spending in the current year will be the highest ever recorded at $37.3 billion, an increase of 6.5% over 1956. Adjusting this figure for price increase, it probably means an over-all expenditure about equal to 1956. In some areas emphasis is being placed on the fact that the rate of gain is slowing

CHART IV STEEL INGOT PRODUCTION



Source: *American Iron and Steel Institute*

CHART V AUTOMOBILE AND TRUCK PRODUCTION



Source: *Ward's Automotive Reports*

down. I think that this is a healthy development rather than one to be interpreted as an adverse influence.

Another major influence underwriting our dynamic fifties has been the continued high rate of family and household formations. Statistically, the forecasters are not on as solid ground as they would like to be when they discuss this subject. The best available figures are estimates of the United States Census Bureau. These suggest that the rate of family formation is showing signs of declining and may continue to decline until about 1960. The Bureau estimates that the range for the next few years will be about 525,000 to 775,000 new units annually. In 1955, the average rate was about 850,000 and at the turn of the decade it reached the high figure of one and one-half million new household units a year. The estimated new figure, therefore, is one half of a recent peak year and is beginning to approach the rate that was prevalent in the 1930's. We cannot, therefore, expect any stimulating influence from this source until the early 1960's.

Consumer debt behaved very well in 1956. Payouts slightly exceeded new loan replacements and, in addition, the rate of saving rose throughout the nation.

Unless a war or inflation scare triggers a demand for more inventory, I would not expect any plus influence from this source in 1957, and at worst, a decline of $3 billion.

CONCLUSIONS

In spite of tight money, relatively high inventories, some profit squeeze, and the possible threat of overexpansion, there are no positive signs of an important decline yet visible. The foregoing potential negative factors at the moment seem to be more than offset by the tempo of the many capital goods projects now under way, the rising expenditures by federal, state, and local governments, a rising automotive market, improving farm income, the nationwide higher wage rates now in effect, and over-all price trends. In addition, and probably most basic, is the fact that there is little speculative froth yet present of the nature of the 1929 period in either the real estate market or the stock market. In fact, about the only area in which there might be overindulgence is in the field of new plant and equipment, but we have already explored this situation and it does not seem as though it will collapse this year.

The capital goods cycle, however, has reached a phase where real business statesmanship must be exercised. Under present conditions, the nation cannot afford to spend more than $40 billion to $42 billion annually for new plant and equipment (at 1956 prices). This means that if steel and related industries must expand because of pronounced shortages in defense materials, there must be offsetting decreases somewhere else in the economy —either in the other capital goods areas or by the consumer. Under a free economy (and that is the best economy in spite of its shortcomings) the decisions must be made in the market place, but controllers can do yeoman service by scheduling their own programs with the needs of the nation in mind.

We should realize that the present capital goods expansion could lead to a letdown of more serious proportions than anything we have had since World War II. If, for example, our capital goods expansion program goes too far and too fast so that it sets in motion the fear of excess capacity, this, together with a $6.5 billion increase in inventories that has occurred in the past months along with the profit squeeze that is showing up, and the decline in new household formation, we would then have a brew, economically speaking, that would call for quite a correction in the economic life of this country. This possible combination of economic conditions is something that we should be conscious of and watching. I would still be basically optimistic, however, for the long pull and would look upon such correction as a temporary but important one.

The American businessman has advanced a long way during the past ten years in understanding how his individual decisions affect the business cycle. The real test, however, is ahead of us. We cannot assume that serious reactions are a thing of the past.

Can the very dynamic capital goods cycle be maintained at a high plateau without having it peak out in a classical economic adjustment pattern?

It must be prevented from rising too fast and going too far if a sharp dip is to be avoided. If enough businessmen recognize this problem, there is hope that a basic peaking out of the cycle can be avoided. During the past three months, General Electric and others have postponed some portions of their expansion program. Although this may reflect management caution, it will help to prevent overdoing the capital goods cycle and may permit a rolling adjustment at a high plateau, thus preventing the danger of a more serious reaction.

May I again re-emphasize what I stated earlier that "the present so-called tight money market has not been created by either the banks or the Federal Reserve Board. Tight money is a reflection of market forces when demand for funds exceeds their availability."

In planning a long-term program it must be borne in mind that an adjustment or a breather could occur between now and 1960. Unless we exercise prudent judgment in our capital goods expenditures, it could be more serious than anything we have heretofore encountered in the postwar period. In no event, however, will it be as serious as the 1929-1932 collapse. This probability, however, does not, in my opinion, justify postponing any expansion or rebuilding project if those plans are economically sound in their genesis. For the long pull, I am optimistic. On the other hand, I think that it is time for management to be planning capital goods expansion so that there are alternative plans ready to be implemented either as to their rate of execution or as to their financing in the event that a capital goods recession develops.

Controllers can and should do more than any other one corporate officer to keep froth from developing in our economic structure at times of boom and to have faith in the long-term future when storms do develop.

FIVE PER CENT OF INCOME DOLLAR SAVED LAST YEAR

Americans added more than $14 billion to their savings last year, according to the Federal Home Loan Bank Board. This brought the total at the year end to $249 billion. Savings, according to the Board, are defined as those savings that do not fluctuate in value and that are easily redeemed: these include savings accounts, holdings of government savings bonds and life insurance reserves. After taxes, the average American put almost five cents of every income dollar into these types of savings in 1956. In total, his readily obtainable savings amounted to about ten months' take-home pay at the 1956 record level.

Statistical Techniques for Financial Planning and Forecasting

A statistical method of accounting to save clerical work and sharpen planning

Dr. Andrew Vazsonyi

A MONTH SELDOM GOES BY without a conference being held somewhere in this country in which businessmen are exposed to some new scientific method of business management. Similarly, business periodicals contain a continuous stream of articles on operations research, linear programming, statistical decision theory, or the use of giant electronic computers. Many of these conferences and articles are aimed at scientists, not businessmen. Consequently, businessmen often find it difficult to understand the theories advanced by the authors or speakers. It is not surprising, therefore, that a certain amount of skepticism and even apprehension is developing on the part of some businessmen when exposed to these new scientific methods. The fact that many of the theories are full of mathematics and statistics makes it even more difficult.

The purpose of this paper is to present, in simple language, a new method that has been found useful in financial planning. In particular, we are going to describe a statistical method of accounting which can save a great deal of clerical work, and which can significantly increase visibility in managerial planning.

Let us recognize that accountants face a dilemma when preparing budgets and forecasts. We are accustomed to considering accounting as a very exact sort of procedure which deals with dollars and cents. However, in forecasting or budgeting, one deals with uncertainties and the accountant is asked to build a structure of dollar figures based on these uncertainties. From uncertain forecasts, exact accounting calculations for revenues, expenses, profits, etc., are carried out to the last dollar and cent. This is generally accomplished through the expense of a great deal of clerical effort.

In spite of the fact that it is tacitly understood that these forecasts do not have accuracies down to the last penny, traditional accounting is not capable of providing short cuts just because high accuracy is not possible. The method we shall describe in this paper takes full advantage of the inherent inaccuracies contained in forecasts. For instance, the relationships between direct and indirect expenses are developed as statistical relationships which are inherently inexact. As it will be seen, capitalizing on the fact that there are always inaccuracies in forecasting, one can obtain significant simplifications in budgeting and forecasting procedures.

In order to present this material, we could follow two alternative approaches. One would be to describe in detail an actual application (how the method is being used), and show specific benefits obtained. The advantage of this kind of approach is that it can be very realistic. The disadvantage, however, is that it is difficult to disengage the details from the fundamentals and, consequently, it is hard to present basic principles. An alternate approach—and this is the one we will follow—is to present the forecasting method through illustrative examples of hypothetical business firms. We shall begin by describing our forecasting technique in a very simple form of organization and then move on to more complicated situations. Through the discussion of an idealized business, the basic principles can be clearly described and subsequently applied to more realistic situations.

Accepting this method of presentation, we will describe budgeting and forecasting in the Alpha Corporation which is a very simple sort of corporation, indeed. Then we will discuss the Beta Corporation which is somewhat more complicated and, finally, we will describe forecasting in the hypothetical Gamma Corporation. At the end of the paper we will relate the principles of this budgeting and forecasting system to a real-life business situation.

(Continued on page 218)

ANDREW VAZSONYI received his Ph.D. in mathematics and physics at the University of Budapest and later took a Masters degree in mechanical engineering at Harvard University. During his 19 years of experience, he has been teacher and lecturer at the University of California, California Institute of Technology and Harvard University. He is currently one of the faculty at the University of California at Los Angeles delivering a series of lectures on the application of scientific techniques to business problems. In 1954 he joined the Ramo-Wooldridge Corporation, Los Angeles, as head of the Management Sciences Department of the Computer Systems Division. Dr. Vazsonyi is a past president and former chairman of the Council of the Institute of Management Sciences; a member of the Operations Research Society of America and the American Physical and Econometric Societies. This article is condensed from a complete article published by AMA.

The New **Customatic** Comptometer®

has more!

MORE for the boss
in new features that mean low-cost, time-saving accuracy!

MORE for the operator
in new features, beauty, ease of operation!

The New Customatic Comptometer gives you everything you've learned to expect from Comptometer— plus 3 new features

NEW — **CUSTOMATIC KEY CONTROL**
operator simply adjusts new control to suit her own individual touch.

NEW — **INSTANT ELECTRIC CLEARANCE**
a touch of the bar and the dials are instantaneously cleared, electrically.

NEW — **COLOR**
smart, restful Diamond Gray, scientifically selected for eye-ease and good looks. Blends readily with modern office decor.

Still There, are all the features that have made COMPTOMETER unchallenged wherever fast, accurate, low-cost figure work is important!

Pinpoint Accuracy – Accuracy Key prevents registration until stroke is completed. Insures accurate results.

Easy-to-Read-Answers – Giant-size numerals in two colors show through wide apertures, counterbored to reduce glare.

Active Ciphers – All ciphers to the left of answers are eliminated. Ciphers and numerals in the answer are distinct and easily read.

Simplicity of Operation – Direct-Action Keys give lightning answers. No levers, cranks, or extra operations to slow results.

Molded Key Tops – Finger-tip fashioned.

Cushioned Touch – Built-in floating action eliminates "finger-fatigue".

Add up all these features and you have the machine that sets spectacular new standards. You will fully appreciate them only when you see the new CUSTOMATIC COMPTOMETER in action. Let us prove this in your office FREE.

Comptometer® – BETTER PRODUCTS / TO BETTER BUSINESS

Comptometer COMMANDER – insures accuracy in dictation. Life-time machine belt saves more than machine costs. See for yourself. Mail coupon.

Comptometer COMPTOGRAPH "220M" – with new multiplication key – more features than any other 10-key listing machine. Try it FREE. Use coupon.

Felt & Tarrant Manufacturing Company
1734 North Paulina Street, Chicago 22, Illinois
In Canada: Canadian Comptometer, Ltd.
501 Yonge Street, Toronto 5, Canada

- ☐ Arrange free office trial for me on:
- ☐ Send me literature on:
- ☐ Comptometer Adding-Calculating Machine
- ☐ Comptometer Commander
- ☐ Comptometer Comptograph "220M"

Name .....
Firm .....
Address .....
City ..... Zone ..... State .....

(Continued from page 216)

Table 1
Cost Analysis for the Alpha Corporation

	DIRECT LABOR	INDIRECT	"OVERHEAD"
JAN.	24,000	16,000	67%
FEB.	23,000	22,000	96%
MAR.	24,000	19,000	79%
APR.	26,000	20,000	77%
MAY	32,000	21,000	66%
JUNE	20,000	17,000	85%
JUL.	26,000	18,000	69%
AUG.	22,000	14,000	64%
SEPT.	28,000	19,000	68%
OCT.	24,000	17,000	71%
NOV.	30,000	18,000	60%
DEC.	22,000	19,000	86%

BUDGETING AND FORECASTING IN THE ALPHA CORPORATION

The Alpha Corporation bills its customers at a flat rate per dollar of "direct" labor. The customer sets up rules as to what labor can be considered "direct," or "indirect." For instance, clerical people or supervisors are not considered as direct labor. Also, it is recognized that some of the employes of the Alpha Corporation work on many different contracts, and it is impractical to keep track of their time every minute. Consequently, the corporation follows the rule that only labor performed in excess of half a day is recorded against a contract, and the rest of the labor is accounted for as indirect labor. (The important thing is that there are definite rules in deciding whether or not a man is considered a direct or an indirect charge.) In a more general sense, we could say that the corporation incurs certain expenses that can be directly charged to the customer's order—and then some other expenses that are not chargeable directly. To be more specific, in *Table 1* we show an illustrative record for the year of 1955. This table shows a monthly record of direct labor in dollars and, also, it shows indirect expense.

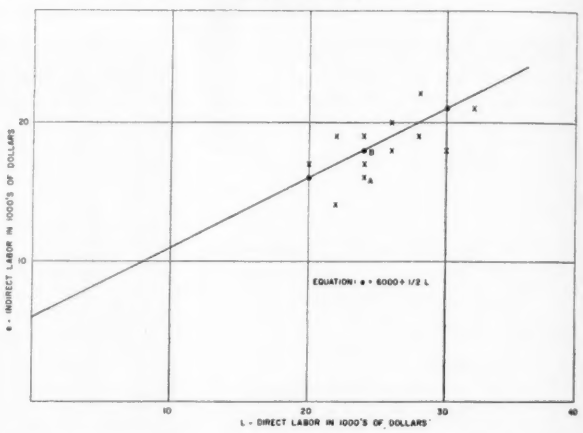
The management of the Alpha Corporation is relying on these data in developing forecasts for the future course of business. The Marketing Research Department predicts the level of business for the Alpha Corporation, and the management wants to have a multitude of questions answered. Management would like to predict gross profits, and to know what the profit would be, depending on alternate possible billing rates. It would like to know what the profit is going to be after taxes. It would like to know what dividends it can pay to stockholders. As there are no inventories in the Alpha Corporation, it does not need to worry about inventory carrying costs or obsolescence. As there is no substantial equipment here, there is no need to study investments, depreciation, capital gains, and many other things.

In a real-life situation, of course, most of these questions and many others would have to be answered. However, as previously stated, we are dealing with a highly idealized type of corporation and we are interested only, for the moment, in answering certain specific questions.

DECREASE OF OVERHEAD

First of all, we want to forecast the gross profit, assuming that there are alternate forecasts for the level of business. An analysis of past data in *Table 1* indicates that "the overhead" decreases as the level of business increases. In order to forecast costs and profits, it is necessary to put this decrease of overhead into some sort of simple rule.

FIGURE 1—Indirect expenses in the Alpha Corporation



Now, here is a place where mathematics may be useful. *Figure 1* presents a chart in which the horizontal axis is the direct labor in thousands of dollars taken from *Table 1,* and the vertical axis is the indirect labor in thousands of dollars. Each little cross in *Figure 1* represents the accounting data from *Table 1* for a single month. For instance, point A represents the month of January, as during this month direct labor was set up $24,000 and indirect

EXPLANATION OF PRINCIPAL SYMBOLS

- a, b factors in regression equation (12)
- a_1, b_1 factors in regression equation (35)
- a_2, b_2 factors in regression equation (36)
- A_1, A_2, A_3 } factors in regression equation (39) and (47)
- B, B_1 }
- c_1 cost of operating Department 1
- c_2 cost of operating Department 2
- c_3 cost of operating Department 3
- C total expense (cost); also, corporate costs for Beta Corporation
- C_1 total divisional cost for Division 1 of Gamma Corporation
- C_c corporate costs for Gamma Corporation
- e expense (indirect labor)
- e_1 direct expense in Department 1
- e_2 direct expense in Department 2
- E general and administrative expense
- E_1 divisional overhead expenses for Division 1 of Gamma Corporation
- E_c general and administrative expenses for Gamma Corporation
- f_0, f_1, f_2, f_3 } factors in Equation (49)
- L direct labor
- L_1 direct labor in Department 1
- L_2 direct labor in Department 2
- O_r overhead rate
- P (gross) profit
- P_c corporate revenue for Gamma Corporation
- P_r profit rate
- r overhead rate charged to customer
- r_1 overhead rate charged in Department 1
- r_2 overhead rate charged in Department 2
- R revenue
- R_1 departmental revenue for Department 1 in Gamma Corporation
- R_c corporate revenue for Gamma Corporation

labor was $16,000. We see then that the accounting data are represented by a group of crosses in *Figure 1*, and our problem is to develop a summarized mathematical representation of these data. In the language of the statistician we wish to determine the regression line expressing the indirect labor as a function of the direct labor.

This is a problem that statisticians have studied for a long time, and the technique of "least squares" has been developed to solve such problems. Without going into details, we may say that the problem is to put a straight line through the crosses in such a way that this straight line goes "close" to these crosses. When such a straight line is obtained, we can write the "equation" of the straight line in this example in the following form:

$$e = 6000 + \frac{1}{2}L. \qquad (1)$$

In this equation, L denotes the direct labor, and e denotes the expense, or the indirect labor. The formula says that in order to get the expense we need to determine the direct labor, take half of it, and add $6000. For instance, if the direct labor L is $24,000, we need to take half of this which is $12,000, and add $6000, arriving at the indirect labor of $18,000.

This is represented in *Figure 1* by point B. We recognize that our formula does not give exactly the expense for the month of January because, instead of $16,000, it gives the value $18,000. However, we note from the diagram that, when direct labor is $14,000, there may be three different amounts of indirect labor: $16,000, $17,000, and $19,000. Our formula gives only a sort of average value. Thus, we see that our mathematical equation represents an idealized summarization of our data, and as far as forecasts are concerned, this equation may be used to compute future expenses. Let us remember that this mathematical equation does not give any informataion that we do not have in *Table 1*. In fact, the mathematical equation contains only a part of the information since, for instance, it does not tell you how far the actual indirect labor expenses may vary from this idealized equation. But, as far as the future is concerned, we cannot tell when these variations will occur and, therefore, we feel that for forecasts the use of this equation may be adequate.

TOTAL EXPENSE INVOLVED

The next thing we want to put into mathematical language is the formula for forecasting the total expense in the Alpha Corporation. This is obtained by adding the direct labor and the expense, or in mathematical form:

$$C = e + L. \qquad (2)$$

We can combine this last equation with our first equation and get an alternate expression for the total cost in the Alpha Corporation:

$$C = 6000 + \frac{1}{2}L + L = 6000 + 1.5L. \qquad (3)$$

We can then see that the total cost for the corporation is forecasted by taking the direct labor cost, multiplying it by 1.5, and adding $6000. In *Figure 2*, we show this total cost equation as represented by a straight line.

EXPRESSING THE REVENUE

Now that we have an equation for the total cost, we can proceed to the next problem of forecasting the revenue. Let us say that the corporation bills the customer for direct labor plus 120% overhead. We can say that the revenue is expressed by

$$R = L + 1.2L = 2.2L. \qquad (4)$$

We observe that the revenue is obtained by taking the direct labor and multiplying it by the factor 2.2. The revenue associated with the direct labor L is represented by a second straight line in *Figure 2*. The difference between the revenue and the cost is the

FIGURE 2—Cost and revenue for the Alpha Corporation

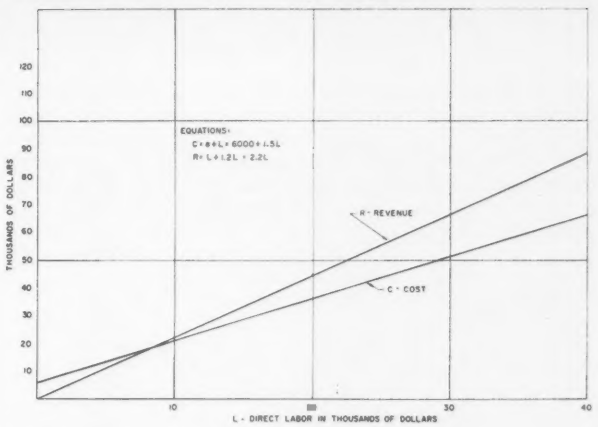
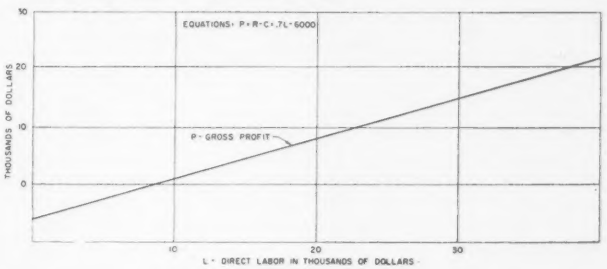


FIGURE 3—Profit for the Alpha Corporation



gross profit. This can be written in mathematical form as

$$P = R - C. \qquad (5)$$

It will be convenient to express the profit for any value of the direct labor, and so we take our Equation (5) and substitute in the expression for the revenue from Equation (4) and for the cost from Equation (3), and get

$$P = 2.2L - (6000 + 1.5L). \qquad (6)$$

This can be written as

$$P = .7L - 6000. \qquad (7)$$

We see that the profit is forecasted by taking .7 times the direct labor and by subtracting $6000, as shown graphically in *Figure 3*. For instance, if the labor is $20,000, then the profit is $14,000 less $6000, or $8000. The break-even point is obtained when the profit is zero, or when

$$L = \frac{6000}{.7} = 8600. \qquad (8)$$

We can verify in *Figure 3* that the break-even point is, indeed, at a direct labor cost of $8600.

OVERHEAD RATE

Now we can ask the question, what is the formula for the overhead rate? We obtain the overhead rate by taking the expense divided by direct labor, or

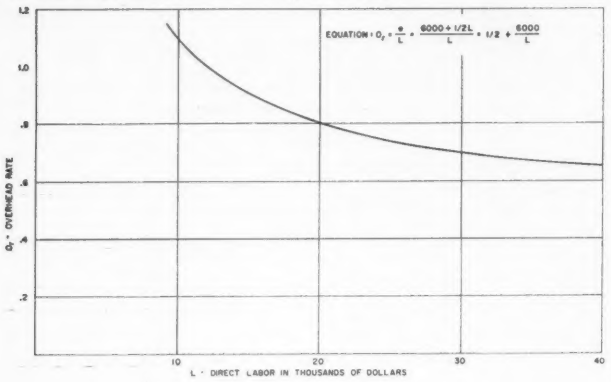
$$O_r = \frac{e}{L}. \qquad (9)$$

We can take our Equation (1) and write *(turn page)*

$$O_r = \frac{6000 + \frac{1}{2}L}{L} = \frac{1}{2} + \frac{6000}{L}. \qquad (10)$$

This is the expression for the overhead rate. A graphical representation of the overhead rate is shown in *Figure 4*. For instance, when the direct labor is $20,000, we forecast an overhead rate of 80% which is shown as .8. The diagram clearly shows that as direct labor goes up the overhead rate decreases. If we had a very large amount of direct labor, the overhead rate would decrease to 50%.

FIGURE 4—Overhead rate for the Alpha Corporation



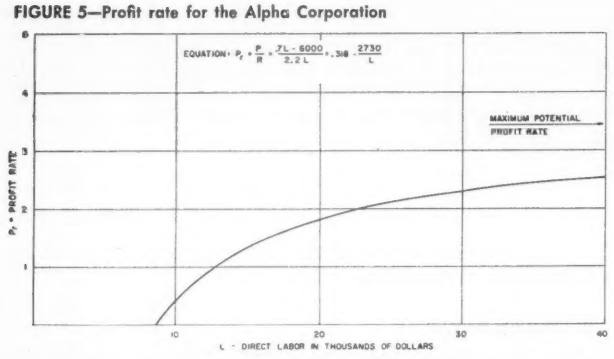
PROFIT RATE

What is the profit rate for the Alpha Corporation? The profit rate is obtained by taking the profit and dividing it by the revenue, or

$$P_r = \frac{P}{R} = \frac{.7L - 6000}{2.2L} = .318 - \frac{2730}{L}. \qquad (11)$$

A graphical representation of the profit rate is shown in *Figure 5*, and we see that the profit rate is zero at the break even point of $8600, and that it then begins to climb to a higher figure. If we had a very large amount of direct labor, then the profit rate would rise up to .318.

FIGURE 5—Profit rate for the Alpha Corporation


EQUATION: $P_r = \frac{P}{R} = \frac{.7L - 6000}{2.2L} = .318 - \frac{2730}{L}$
MAXIMUM POTENTIAL PROFIT RATE
P_r = PROFIT RATE
L = DIRECT LABOR IN THOUSANDS OF DOLLARS

The point we are trying to make here is really a very simple one. The mathematical formula expressing the expense as a function of the direct labor is a simple and convenient way of forecasting costs and profits. Of course, one wants to compute the overhead rate and this is a simple computation as indicated by Equation (10).

ALLOWING FOR CHANGE

One of the peculiar traits of scientists is that they try to describe a phenomenon in a general sort of fashion. Our equation for the Alpha Corporation says that the expense is forecasted by taking one-half of the direct labor, and adding $6000. If we had another corporation with this simple sort of a sales structure, we would expect that these particular numbers in the formula would change. The advantage of mathematics is that this contingency of having these numbers change can be taken care of in a very simple way. We write that indirect labor or expense can be given by the following equation:

$$e = a + bL. \qquad (12)$$

In this equation, L is again the direct labor, and on the left-hand side e is again the expense. However, you will note that instead of writing $6000, the letter *a* is written, and instead of writing that we need to take one-half of the direct labor, the letter *b* is written. This is the algebraic notation expressing the fact that the expense is a straight-line function of the direct labor. Now we can express the total cost as

$$C = L + e = a + (b + 1)L. \qquad (13)$$

In our original Equation (3), we had instead of *a*, the $6000 figure, and instead of the $b + 1$ we had $.5 + 1$ which is, of course, 1.5. Now that we have the cost expressed in algebraic form, let us proceed to express the revenue. We say that r is the overhead rate charged to the customer; revenue is shown as

$$R = (1 + r)L. \qquad (14)$$

(Compare this with Equation (4) where r is 1.2 and $r + 1$ is 2.2.) We can compute the gross profit as the difference between the revenue and the cost, and get the equation

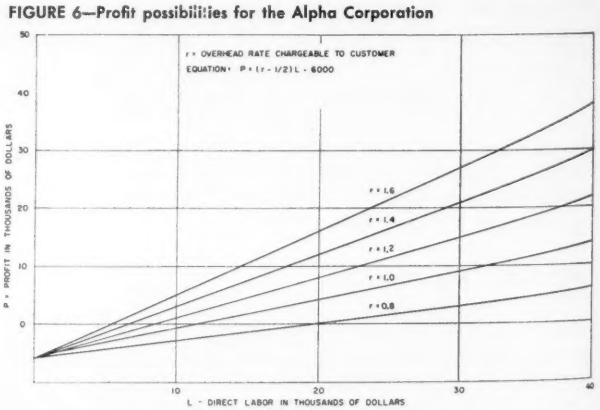
$$P = R - C = (r - b)L - a. \qquad (15a)$$

For the Alpha Corporation, we had $a = 6000$, and $b = .5$; and, therefore, in that case the profit is given by

$$P = (r - .5)L - 6000. \qquad (15b)$$

We recognize here that for different values of r (which correspond to the different overhead rates), we get, of course, different profit values. In *Figure 6* we show these profit possibilities by different straight lines, each line corresponding to a different overhead rate. This is a financial planning chart for the management of the Alpha Corporation. Depending on the direct labor predicted and the overhead rate proposed, one can forecast profits to be realized.

FIGURE 6—Profit possibilities for the Alpha Corporation


r = OVERHEAD RATE CHARGEABLE TO CUSTOMER
EQUATION: $P = (r - 1/2)L - 6000$
r = 1.6
r = 1.4
r = 1.2
r = 1.0
r = 0.8
P = PROFIT IN THOUSANDS OF DOLLARS
L = DIRECT LABOR IN THOUSANDS OF DOLLARS

Let us obtain now the general expression for forecasting the overhead rate. We know that this can be computed by taking the expense and dividing it by the direct labor. Therefore,

(Continued on page 222)

ANNOUNCING A
NEW VERTICAL

CYCLE BILLING DESK

This new Vertical Cycle Billing Desk offers the ultimate in advanced design and quality of manufacture. Console modeling of this new desk provides easy side access to trays as well as exceptional at-a-glance visibility for supervisors and unit operators.

The light, durable aluminum trays are perfectly balanced for ease of handling and the center trays are in two sections so that only half the load is handled at one time. Working levels are ideal for either seated or standing operation and the low overall height makes supervision simple. The desk is protected by steel covers that open and close easily, and a strong snap lock.

Get full particulars now! Write Room 1506, 315 Fourth Avenue, New York 10—simply ask for LBV791.

Remington Rand
DIVISION OF SPERRY RAND CORPORATION

$$O_r = \frac{e}{L} = \frac{a + bL}{L} = b + \frac{a}{L}. \qquad (16)$$

(This is similar to Equation (10) which gives the overhead rate for the Alpha Corporation.) We can compute the profit rate by dividing profit by the revenue and so get,

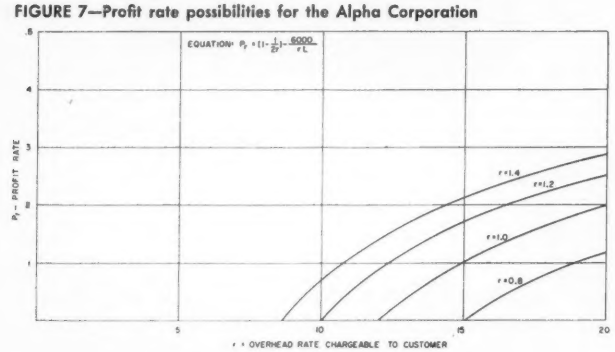
$$P_r = \frac{P}{R} = \frac{(r - b)L - a}{rL} = (1 - \frac{b}{r}) - \frac{a}{rL}. \qquad (17)$$

For instance, for the Alpha Corporation, $b = .5$ and $a = 6000$, and so the profit rate is given by

$$P_r = (1 - \frac{.5}{r}) - \frac{6000}{rL}. \qquad (18)$$

In *Figure 7* we show a graphical representation of this equation. When the customer is charged 120% overhead, $r = 1.2$ and we get our profit rate curve shown in *Figure 4*. *Figure 7* can be useful for planning purposes, as it shows how the profit rate changes if the billing rate is changed.

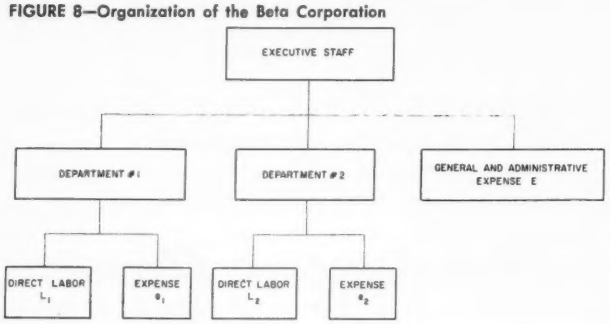
FIGURE 7—Profit rate possibilities for the Alpha Corporation



BUDGETING AND FORECASTING IN THE BETA CORPORATION

The Beta Corporation is somewhat more complicated than the Alpha Corporation but it is still highly idealized. There are only two departments; Department 1 and Department 2, and each of these departments has direct and indirect expense. For each of the departments, we can set up a system for forecasting overhead in the same way as was done for the Alpha Corporation. However, in the Beta Corporation there is in addition general and administrative expense which cannot be directly associated with either Department 1 or Department 2. The graphical representation shown in *Figure 8* might be used to portray this forecasting problem. We show direct labor and expense in each of the departments; then, in a separate box, we show general and administrative expenses—which is where all expenses are charged which cannot be directly associated with either Department 1 or Department 2.

FIGURE 8—Organization of the Beta Corporation



DEPARTMENTAL EXPENSE

We denote by L_1 the direct labor in Department 1, and by e_1 the expense in Department 1. By carrying out a regression analysis similar to the one we did for the Alpha Corporation, we find that the expense in Department 1 can be forecasted with the aid of the following formula:

$$e_1 = 1000 + .5L_1. \qquad (19)$$

For instance, if the direct labor L_1 is \$15,000 then the expense e_1 is \$8500; the cost of operating Department 1 can be computed by adding the direct labor and the expense, or

$$c_1 = e_1 + L_1. \qquad (20)$$

With the aid of Equation (19) this can be written as

$$c_1 = 1000 + 1.5L_1. \qquad (21)$$

To illustrate this, if the direct labor L_1 is \$15,000, then the operating cost of Department 1 is \$23,500.

Quite similarly, for Department 2, the expense e_2 can be computed as

$$e_2 = 3000 + .3L_2 \qquad (22)$$

where L_2 denotes the direct labor in Department 2. The operating costs of Department 2 can be computed by adding direct labor and expense. Therefore, the operating cost c_2 of Department 2 is given by

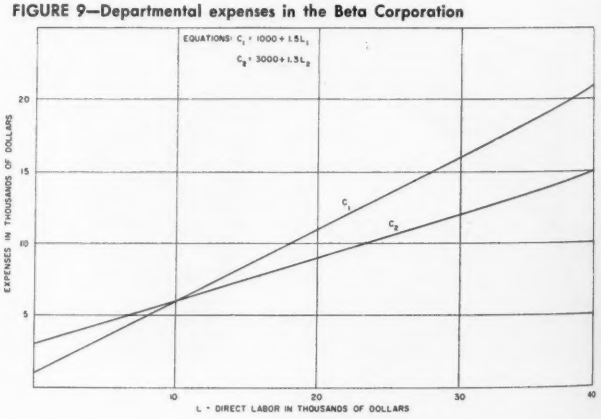
$$c_2 = e_2 + L_2. \qquad (23)$$

This, again, can be written in the form

$$c_2 = 3000 + 1.3L_2. \qquad (24)$$

As an illustration, we can easily compute that if the direct labor in Department 2 is \$5000, then the expense is \$4500 and the departmental expense is the sum of these two or \$9500.

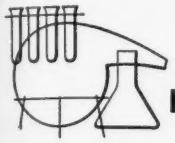
FIGURE 9—Departmental expenses in the Beta Corporation



A graphical representation of the indirect charges in each department is shown in *Figure 9*. It can be seen, for instance, that when the direct labor is \$10,000, then the indirect expense is \$6000 in each of the two departments. We recognize, however, that an increase in direct charge of say \$1000 increases expenses in Department 1 by \$500, but in Department 2 by \$300. The incremental increase in expenses is lower in Department 2 than in Department 1, though the "fixed" expense is lower in Department 1 than in Department 2.

(Continued on page 244)

HERE'S HOW...



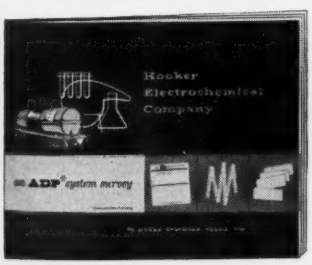
Hooker Electrochemical processes orders faster

The company's previous order-writing system involved much repetitive writing. This was corrected in a new automated system that also saves time and errors, processes orders faster and produces statistical reports more efficiently.

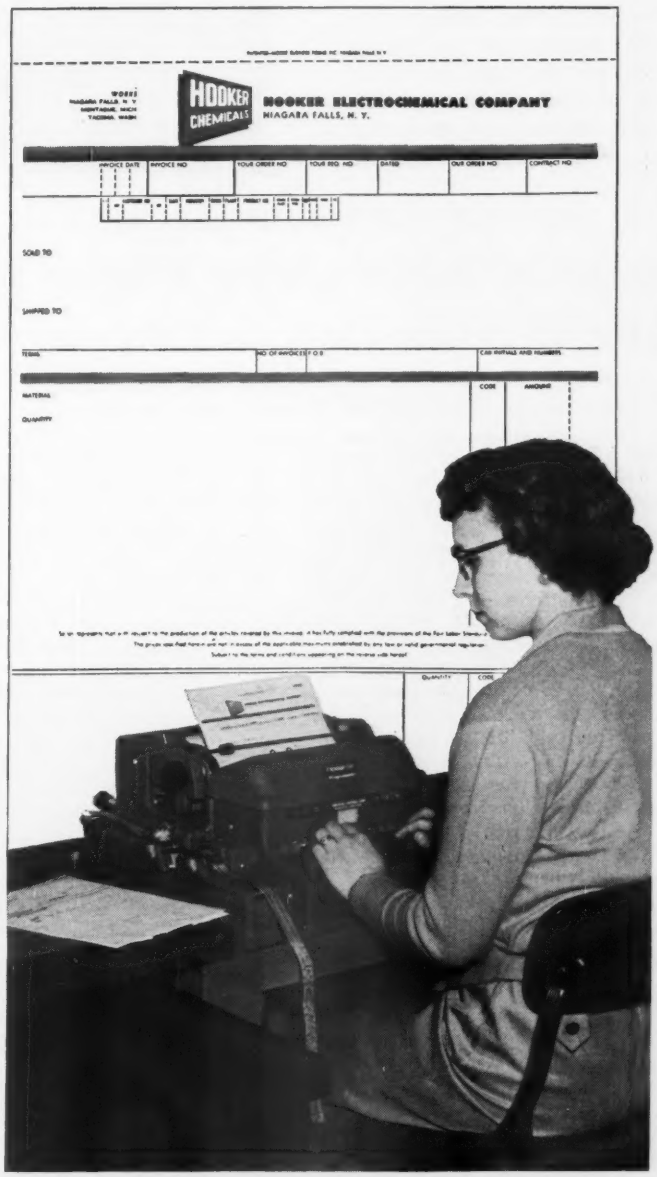
The Flexowriter starts the chain of automated procedures. The input is fed into it: constant information from the customer's master tape and variable information from the salesman's order. The output shows in Moore forms and in by-product tapes that activate punching or writing machines.

A Moore 10-part Order and a 5-part Invoice were designed to make the system dovetail, and copies carry information or instructions to every location needed. A statistical tape, containing selective information, prepares punched cards and, from these, monthly and yearly reports and special analyses are run off.

The Moore man, using Moore facilities, helped Hooker with scientific design and manufacture of forms to fit the system of Automated Data Processing.



If you would like to read the details in this booklet, write on your Company letterhead to the nearest Moore office below.



75TH ANNIVERSARY MOORE

MOORE BUSINESS FORMS Inc

NIAGARA FALLS, N.Y. · DENTON, TEX. · EMERYVILLE, CALIF.

Since 1882 the world's largest manufacturer of business forms and systems. Over 300 offices and factories across U.S., Canada, Mexico, Caribbean and Central America.

A CASE HISTORY of management planning and control at Bell & Howell Company was presented by three members of the B&H management team. Seated at the far right is William B. Harrell, comptroller of the Louisville Tin and Stove Company, who presided at session.

Stockholder Relations, Labor Relations and Management Compensation Discussed at Controllers Joint Midwestern/Southern Conference

HIGH LEVEL INTEREST SUBJECTS at the 1957 joint Midwestern/Southern Conference of Controllers Institute included the place of radio and TV audience research in marketing and sales planning; compensating middle and top management; current problems in labor relations; shareholder relations; and a case history of management planning and control.

Sponsored by the Kansas City Control of Controllers Institute, the joint conference was held March 31, April 1 and 2, in Kansas City, Mo., at the Hotel Muehlebach. Donald A. Robertson, controller and assistant secretary, Panhandle Eastern Pipe Line Company, was the general chairman, while J. Lowell Johnson, controller, J. A. Folger & Company, was vice chairman of the conference.

THE PLACE OF RADIO AND TV AUDIENCE RESEARCH IN MARKETING AND SALES PLANNING

Addressing the opening session, H. Wynn Bussman, director of public relations, Broadcast Division, A. C. Nielsen Company, Chicago, Illinois, stated that, in the competitive environment we have today, advertising performs many important functions. In some instances it plays a decisive role. Advertising acts like a catalyst upon the national economy, particularly with respect to the process of distribution and competitive sales.

"It is estimated that American business in 1957," he said, "will spend $12 billion in total advertising, all media combined. This sum, while huge, is only three per cent of the national economy and is relatively smaller in that regard than it was 10 years ago. Broadcast advertising, radio and television, will be at the $1.8 billion level for 1957, or 15 per cent of the total advertising expenditure. Largely because of the rapid growth of television and of its own increasing costs, broadcast advertising is getting a greater share of the total advertising budget than ever before."

Mr. Bussman told the group that while radio and television are tremendously effective advertising media each is highly speculative in nature. He elaborated on this by saying that advertisers who use these media face a much wider range of relative failure or success, measured in terms of the results they get for the dollars they spend, than they do in virtually any other business activity.

TRENDS IN TOP MANAGEMENT COMPENSATION

When adjustments are made for taxes and cost-of-living increases, the purchasing power of top management has been cut 59 per cent in the period 1939-50 while that of middle management has been reduced 40 per cent, said Forrest Wallace, managing director, Chicago office, McKinsey & Company, Inc.

"In view of all this," noted Mr. Wallace, "the formal systematic package approach to compensation, as practiced immediately before and after World War II, is no longer the answer to our problem. This has yielded to the combination approach of applying standard techniques and imagination to giving people what they want and need.

"For example, in one company's case, we found that five different age groups among the executives had as many different opinions regarding the firm's retirement plan, which was so set up that it would actually pay many executives more upon retirement than while they were employed. After looking at these executives individually and as a group, we came up with the program consisting of five different arrangements, each tailored to a group of executives with similar needs and wants. Most executives in their forties will change jobs for $5,000 to $10,000 more in base pay as compared to three, four or five times that sum on retirement."

Mr. Wallace noted that in the last few years, hundreds of companies have adopted stock option plans but he indicated that some of the plans were ill conceived. "There is no doubt," he said, "that options are worthwhile devices for attracting top-level executives and compensating those who are being hurt by high taxes. But like so many things, what is good for a few is not necessarily good for many."

About half the companies in the United States, Mr. Wallace told the group, now have some plus-compensation plans and this percentage is increasing each year. General guide lines for companies to follow in administering these plans would include:

1. In general, the money should be divided on the basis of performance, and

(Continued on page 236)

Responsibility Auditing

A SUPRADIMENSION OF MANAGEMENT CONTROL

William L. Campfield

The conceptional framework for auditing the over-all responsibility of management

CURRENT LITERATURE has been enriched with many books and articles dealing with the audit of management responsibility for operating an enterprise at a profit. This pronounced emphasis rightfully recognizes that business management is specifically charged by the suppliers of capital and by society at large with a first responsibility for profitably using enterprise resources, or as Peter Drucker would put it, "responsibility for organized economic advance."

It is believed, however, that added attention should be devoted to audit, i.e., planned examination and evaluation, of management's effectiveness in discharging its over-all responsibility to various components of society.

One of the distinguishing features of present-day democratic industrial society is the consensus that business enterprise is a social undertaking in and around which several groups and diverse personalities are assembled to work together for their mutual economic advantage. Since the welfare of any society depends in large measure on the effective long-range functioning of the economic arrangements under which it lives, the ultimate responsibility of each manager of a business enterprise is to synchronize and harmonize the diverse interests in such manner as to make his enterprise a good society.

This large responsibility may be viewed as a synthesis of four distinct, though interrelated, subordinate obligations:

1. To suppliers of capital (owners and creditors) for the conservation of their capital and the payment of returns on capital sufficient to encourage the continued supply of funds;
2. To consumers to supply a product or service sufficiently superior in quality, price-economy, and contributory to societal well-being as to warrant repetitive long-run demand;
3. To employes to provide the best competitive compensation and a work environment which promotes individual initiative, productivity, and development; and
4. To the public at large to operate the enterprise and to participate in public affairs in a manner to best serve society as a whole, i.e., to conduct the enterprise as a good business citizen.

The balance of this paper will be concerned with presenting the conceptual framework of a pattern or approach for auditing the over-all responsibility of management. It is not deemed essential to development of the theme to devote much attention to specific audit techniques or to resolve the question of whether such audit is best performed by independent specialists such as management consultants and engineers, public accountants, economists, or by internal specialists employed by individual business concerns. It is more important to understand the philosophy behind management's ultimate responsibility and some of the important steps management should take to insure unified plans and action in the discharge of that responsibility. For it is fairly well agreed that in this day of creeping statism, private enterprises, through their managers, in order to survive must work out patterns of conduct which not only protect economic productivity but earn active public approval as well.

RESPONSIBILITY FOR PRODUCTIVE USE OF RESOURCES

The ultimate sanction of individual business enterprise comes from its usefulness in furthering the well-being of society. Consequently, a first practical consideration of every management is the planning and conduct of its enterprise activities so as to achieve economic results acceptable to society. The major criteria of the social desirability of any business enterprise are over-all economic progress, smooth and responsive resource allocation, and efficient management of enterprise activities.

There is ample authoritative literature regarding the objectives, techniques, and procedures of managerial control of the economic activities of an enterprise. As a setting for discussion of other interrelated major responsibilities, it will suffice at this stage to pinpoint some of the key aspects of planning and control for which management is well advised to perform the maximum of *ex-ante* examination and

WILLIAM L. CAMPFIELD is staff manager, San Francisco Regional Office, Army Audit Agency. He is a CPA (California and North Carolina) and holds a degree of Doctor of Philosophy from the University of Illinois. He is a member of the American Institute of Accountants, the American Accounting Association, the National Association of Cost Accountants, and the California Society of Certified Public Accountants. His experience has embraced collegiate teaching, public accounting practice and auditing positions with private industry as well as government.

evaluation of its potential for efficient and profitable operations.

Perhaps the most significant insurance of long-run profitability is accomplished when management has assured itself that its resources (personnel and plant) are properly geared for smooth adaptation to changing environmental conditions. This problem of adaptation to change is a pervasive one which bears heavily on every major action management takes.

Inasmuch as continuity of enterprise operations depends on long-range productiveness, management must devise a well-conceived and interlaced framework of both long-term and short-term plans. The long-term plans will embrace major policies regarding broad enterprise objectives, financial structure, design of organization, sales, procurement and production, personnel, facilities, public relations, and the like. These plans which plot the circumference of all management decisions require considerable time to build, and arduous and concentrated action to preserve. Dynamic management will use every tested means available to predict the effects on its enterprise of technological as well as social and political changes. By assuring itself that it has an adequate forecasting mechanism in operation, management will be in position to constructively guide innovations and changes along the lines of its deliberative thinking. Through timely arrangement and revision of its long-range plans, management can consolidate its present position in industry and society and create a future position which minimizes the danger of decisions being forced upon the enterprise as a result of outside forces.

Management must be prepared to complement its long-term plans with a well-knit series of alternative short-range plans. The latter represent specific, detailed programs and procedures for present action. In order to achieve the best long-run enterprise results, short-range plans must be compatible with and susceptible to integration into long-range plans. To the extent this is accomplished, the long-range objectives of the enterprise will be under control as short-range plans are achieved.

The techniques of auditing management planning and control of the internal operations of an enterprise are fairly well known. They are manifestations of an objective, integrated scheme to periodically examine and evaluate such fabrics of the enterprise as:

1. Competitive position and future of the enterprise;
2. Company objectives and policies;
3. Administrative and organization structure and relationships;
4. Resources utilization; and
5. Operational programs, methods and procedures, measurement, reporting, and control devices.

The methodology of applying the audit techniques has been covered by many persons. Two references will suffice at this point. The American Institute of Management, for example, has been in the forefront in designing useful guides and questionnaires to be used by management and its specialists. Again, a contemporary writer has blueprinted a stimulating set of questions and illustrations that might be useful for this purpose.[1]

Needless to say, skillful and imaginative application of a planned program of continuous evaluation of the components of managerial responsibility to operate profitably can help insure that an enterprise will always be prepared to make orderly adjustment to the constantly changing economic environment in which it functions.

In summarizing this portion of the discussion, it appears almost trite to remind ourselves that the most productive long-run use of enterprise resources is likely to be achieved when forward plans of management have been carefully conceived, adequately reviewed and adjusted on a timely basis, and artfully executed as an integrated whole.

It is well to note that sound planning involves a judicious combination of research and forecasting. Success in this regard is dependent upon the collection and use of factual relevant data. Although sound managerial decision making rests in large measure on the personal judgment of managers, the latter cannot make sound decisions without facts. Since the complexity and dynamics of modern enterprise preclude one or a few persons from assembling all the facts needed for timely decision making, wise managers will see to it that they have all the informed assistance available to assure that their responsibility for productive use of enterprise resources is under constant independent surveillance and evaluation.

RESPONSIBILITY FOR INSURING LONG-TERM DEMAND

Managerial action has been influenced for a considerable time by the age-old dogma that maximum enterprise profitability is accomplished through an enterpriser's ability to produce inexpensively the goods and services which yield consumers the most satisfactions. This dogma is a deceptive oversimplification. Its literal interpretation would seem to suggest that if an enterpriser "built a better mouse trap" at least cost he might well assure successful operations with a relatively small additional effort in salesmanship and distribution.

Determination of the shape and content of consumers' satisfactions is an elusive and enormous task indeed. Involved in the concept is a myriad of rapidly changing individual and group ideas about the kind and value scale of human desires, the costs and difficulties to be overcome in their satisfaction, alternative or substitute values in products and services, and the constant flux in knowledge and facilities available to satisfy wants.

All the foregoing points up rather strikingly that in order to assure the continuous long-run profitability of his enterprise, a manager must make a very careful advance analysis of present and future consumer demand for his products and services. A reasonably steady and predictable demand is the life line of business enterprise. The actual production output and scale of plant can only be plotted after a determination

(Continued on page 228)

"You serious about wantin' a couple of days off?"

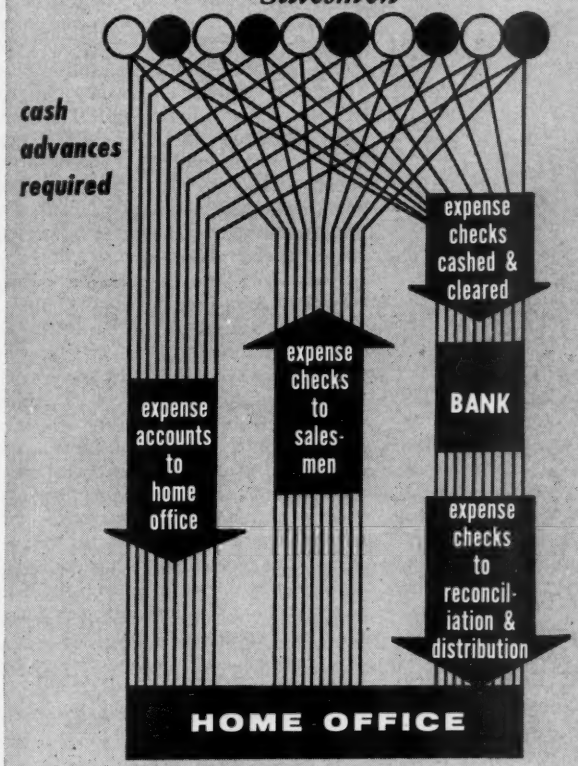
[1] Wilson, Arthur P., "The Management Audit Comes of Age," THE CONTROLLER, September 1950, pages 411-16.

TRAVELETTER SYSTEM

the efficient way of Travel Expense Reimbursement

ANYBODY'S WAY

Salesmen



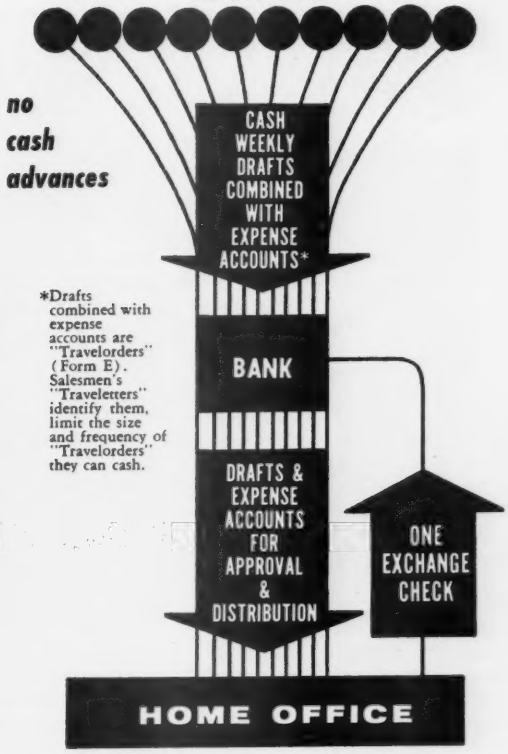
home office performs

30 *operations per week*

to reimburse **10** *salesmen*

TRAVELETTER SYSTEM

Salesmen


no cash advances
CASH WEEKLY DRAFTS COMBINED WITH EXPENSE ACCOUNTS*
*Drafts combined with expense accounts are "Travelorders" (Form E). Salesmen's "Traveletters" identify them, limit the size and frequency of "Travelorders" they can cash.
BANK
DRAFTS & EXPENSE ACCOUNTS FOR APPROVAL & DISTRIBUTION
ONE EXCHANGE CHECK
HOME OFFICE

home office performs

11 *operations per week*

to reimburse **10** *salesmen*

You will readily see that the Traveletter System greatly simplifies accounting procedures, eliminates cash advances, and protects your travelers from being stranded without funds. The system offers these and other benefits at operating costs lower than those entailed by "conventional" procedures.

The list of Traveletter clients reads like a blue book of American industry. Every year *96.4% of those clients renew their contracts*—with good reason!

If your company has ten or more people on the road, then you'll want to learn about Traveletter, and about the advantages it has for you. Phone, wire, or write for the full story.

SINCE 1894

Traveletter Corporation

GREENWICH, CONNECTICUT

"Why not settle the whole thing by Pat picking you up at Martha's and wearing your ballet length pink tulle? That way you might find time to cut the stencil and check the time cards!"

has been made of anticipated volume distribution. It follows that the entire constellation of internal management problems of programming, controlling and correlating enterprise operations is inextricably interwoven into the broad enterprise policies regarding consumers and consumer demands.

In the economic system under which modern enterprises operate, the knowledge of relevant economic facts are diffused throughout society. Conventional economic analysis focuses upon *the pricing system* as the coordinating force wielding the separate economic actions of different people into an integrated whole. It is reasoned that the price system reflects the ultimate decisions of the many people who are familiar with the resources of a society and consumers' desires for the use of resources.

Helpful as this theory may be for purposes of aggregative analysis of a society's economic actions it is quite obvious that the important consideration for the individual business firm is not price theory in general but a workable price theory for the particular firm. A galaxy of interrelated postulates will be necessary to derive such theory. In part, consideration must be given to such factors as:

1. Type, size, location, disposable income, buying habits, etc., of potential consumers;
2. The line and quality level of products and services to be offered;
3. Price and quality of competing products and services;
4. The general price level;
5. Anticipated demand for the firm's products at various tentative prices; and
6. Estimated cost of production and distribution.

In most business enterprises it is customary to establish prices for some relatively long-term period. Generally, because of existing contracts or because of habitual buying habits of consumers, it is not feasible to change these prices too readily. Hence, the price structure and price theory of a firm once established becomes fairly widely known and permeates the entire fabric of enterprise-consumer-society relations. In a sense, it may be said that the firm's price theory and the related price structure condition the entire activities of the enterprise. From it flow consumer and sales policies which broadly define the shape and volume of economic service to be performed, policies as to output and scale of plant, and all other policies governing internal operations.

From the foregoing, the conclusion is apparent that when business management undertakes construction of a workable price theory for its firm it is faced with a multivariate and multidimensional problem. It follows therefore that management must establish adequate internal machinery which will keep it continuously and reliably informed as to reasonably anticipated demand and of tested ways and means for promoting increased demand. In addition to establishing a smooth internal data-gathering and analysis mechanism, "heads-up" management will retain outside specialists, e.g., economists, marketing counsellors, accountants, to make systematic review and evaluation of the firm's price and consumer policies "in action."

Prior to concluding this portion of the paper, it might be helpful to point out some frequently neglected areas which specialists, both internal and external, should stress in aiding management to keep on top of its responsibility for insuring long-run demand. Conventional demand analysis has directed the greatest degree of attention to sales forecasts based on statistical studies covering such factors as individual enterprise price-sales schedules, schedules of selected consumer income-spending, industry and general income-cost schedules, and so on. Too little attention has been devoted to ways and means by which individual enterprisers or a concert of enterprisers can change or stimulate consumers' desires in a socially desirable manner. A particularly fruitful area for added attention is that of study and analysis of consumer motivation, i.e., determination of the motives behind consumer purchasing. As a corollary, controlled experiments might be conducted to ascertain the actual changes in consumer desires or purchases that can be achieved through varying types of promotion.

We may summarize this part of the discussion by observing that management's effectiveness in insuring that there will be a stable long-run demand for its products will depend in large measure on the degree to which managers achieve a relatively ideal continuous analysis of potential demand. This ideal should yield results permitting formalization of prices over reasonably long periods of time and at the same time contain sufficient flexibility to permit management to make timely adjustments to compensate for major changes in consumer demand.

RESPONSIBILITY FOR EMPLOYE PRODUCTIVITY AND DEVELOPMENT

In recent years the subject of stable employe relations has been surveyed by managements and their specialists with increasing emphasis on the economic, political, sociological, and psychological aspects of the problem. The academic explanations of this latter-day interest in the welfare of workers are many. However, a pragmatic explanation appears to be a belated recognition by entrepreneurs that employes represent not only units of productive capacity but units of potential purchasing power and political power as well. The day is long past when management could deal with its workers solely in terms of certain laws of economic behavior.

Management desirous of harmonizing the over-all productive potential of its enterprise will make sure that no precarious situations exist in its relations with employes. In similar manner as it seeks assurance of the integrity and efficiency of its financial operations by having periodic financial audits, management should have planned periodic examinations and evaluations of employe relations. Such audits can aid management considerably in assuring that these relations are in harmony with the over-all objectives of the enterprise. Without reasonably good continuing employe morale and productivity, it is obvi-

ous that the long-run economic usefulness of the enterprise may be placed in jeopardy. Perhaps as an oversimplified generalization, it may be stated that the key to achieving good employe relations is the motivation of employes to accept the direction and control which management exercises and thus willingly and promptly apply their full skills and efforts to the tasks and duties assigned.

Comprehensive surveys and studies of American workers have resulted in the publication of numerous lists of what workers require for amicable job relations. We will discuss briefly only a few of the more significant areas in which periodic programmed audit can point up potential danger spots to which enlightened management will direct preventive action. These areas are:

1. Compensation and Pay Practices;
2. Work Arrangements;
3. Selection and Promotion Practices;
4. Training and Development; and
5. Communication and Supervision.

The enterprise's compensation structure and policies should be established on the basis of an objective job or position evaluation system. Pay adjustments should be made in accordance with some relatively standardized merit-rating scheme. Surveys have revealed that most employes do not have absolute standards as to the level of pay they require in order to be productive and happy. Instead, they are generally satisfied if the following conditions are met:

1. The pay is reasonably competitive with that offered by alternative employment;
2. Differences in pay between positions within a company are commensurate with differences in requirements of job skills, training, and responsibility.

Periodic examination of the compensation structure and practices should be geared to make determinations of whether pay rates are actually in conformance with job evaluations, whether they conform to competitive standards, and whether the merit-rating system is being fairly administered. Quick remedial action on the part of management in adjusting rates that are out of line should forestall serious breakdown in employe morale and productivity.

Policies regarding work conditions in modern enterprise have become fairly standardized. Notwithstanding, the practice of many managements is to rely completely on second- and third-line managers to see that reasonable standards of working conditions are met. Too many of these subordinate managers in the course of daily crises of "getting things done quickly" are likely to forget that workers are something more than mere adjuncts to the plant and records of the enterprise. Each employe should be entitled as a minimum to clean, comfortable, and safe surroundings and to work equipment adequate enough to assure that with diligence and skill he can produce up to the standard for which his employment classification calls. Objective examination of this aspect of employe relations should focus on relating existing work facilities and conditions to the standards established for the industry of which the particular enterprise is a part.

A successful selection and promotion policy depends upon some prior systematic inventorying of present and future job opportunities within the enterprise. A haphazard scheme of hand-to-mouth filling of positions will inevitably result in stultifying the development of promising employes. Management must devise not only short-range plans for utilizing employes but must look beyond and visualize the

(Continued on page 259)

FRANK J. CARR, a charter member and first national president of Controllers Institute of America, retired on April 26 as vice president of Mallinckrodt Chemical Works, St. Louis, Missouri, which he had previously served as comptroller.

Mr. Carr has had a long and notable career in controllership, starting in 1922 with his first responsibility as a controller with Jones, McDuffee & Stratton Corporation, china and glassware importers in Boston, Massachusetts. In 1930 he became controller of Aviation Corporation of America. He was with this organization when Controllers Institute was founded in 1931 and became its first president.

In 1933 he was appointed the first controller of Tennessee Valley Authority, Knoxville, Tennessee, and in 1937, controller and later vice president-finance of American Steel & Wire Co., U. S. Steel Corporation subsidiary in Cleveland, Ohio. From 1944 to 1946, when he joined Mallinckrodt, he was associated with Sanderson & Porter, New York management consultants.

Mr. Carr, who is now an honorary life member of Controllers Institute, in 1936 was elected a member of Cosmos Club, Washington, D. C., on the basis of distinguished service in the field of accounting.

Labor Disputes

The Supreme Court has limited the power of a state to step into labor disputes over which the NRLB has refused to take jurisdiction. The ruling was handed down in three separate 6-2 decisions involving labor disputes in Utah, Ohio and California.

Delinquent Taxes

A Treasury Department Report shows that delinquencies of all federal taxes amounted to $1,620 million on December 31, 1956. This was about $26 million less than a year earlier.

Living Costs

BLS reported the consumer price index rose 0.2 per cent in January to a new high for the fifth consecutive month. The index stands at 118.2 per cent of the 1947-49 average.

Federal Workers

A report by the Joint Committee on Reduction of Nonessential Federal Expenditures showed the number of federal civilian workers in January 1957 totaled 2.4 million, a decrease of 2,773 from the previous month.

Tax Credits

On a consolidated return, the fraction limiting the foreign tax credit is applicable to the total United States income tax of the affiliated group for the taxable year, whether computed by the regular method or by the alternative method.

Individual Savings

The Securities and Exchange Commission reported individual savings increased by $3.9 billion in the third quarter of 1956, compared with a $2.2 billion rise in the previous period and a $3.5 billion increase in the year-ago quarter.

Data to Insurance Stockholders

SEC Chairman Armstrong indicated that some insurance companies must mend their ways for the protection of investors. Some of them give only scanty data to their stockholders in that they give balance sheets with no earnings reports, are not giving the names of nominees for directorship, and sometimes do not give an annual report before the stockholders meeting.

Labor Laws

The Supreme Court has ruled that federal labor laws do not apply to picketing of a foreign ship operated by foreign sailors while the vessel is temporarily in a U. S. port.

Verifying the Price Index

The Department of Labor is planning to double check the accuracy of its Consumers Price Index. A survey to check the Index was made in 1950-51, and according to BLS, "the time has now come when we must begin to re-examine the basis of the Index."

Tax Write-Offs

The Office of Defense Mobilization announced the closing of expansion goals for chemical-grade chromite selenium and battery- and chemical-grade manganese ore.

Proxy Fight Costs

An informal opinion from IRS indicates that costs of proxy fights are not deductible.

Personal Income

For February 1957, personal income climbed to a record $336.7 billion seasonally adjusted annual rate. This was $1.7 billion over the January rate and $21.6 billion above February 1956.

Tax Delinquencies

Employment tax delinquencies, the money withheld from paychecks but not sent to the Government, totaled $279.2 million at the end of 1956. This compares with the $284.8 million of a year earlier and $254.1 million of two years earlier.

Government Out of Business

Bread baking has been or will be discontinued at six of the eight VA hospitals that still had bread bakeries in operation at the end of 1956. A VA spokesman said the change "will not be a saving."

Government Bills

The Comptroller General has scrapped a 50-year-old requirement and ruled that companies other than transportation firms, when presenting bills to the Government for payment of services rendered on supply or construction contracts, need no longer certify on the invoice that the bill is correct and that it has not yet been paid by Uncle Sam.

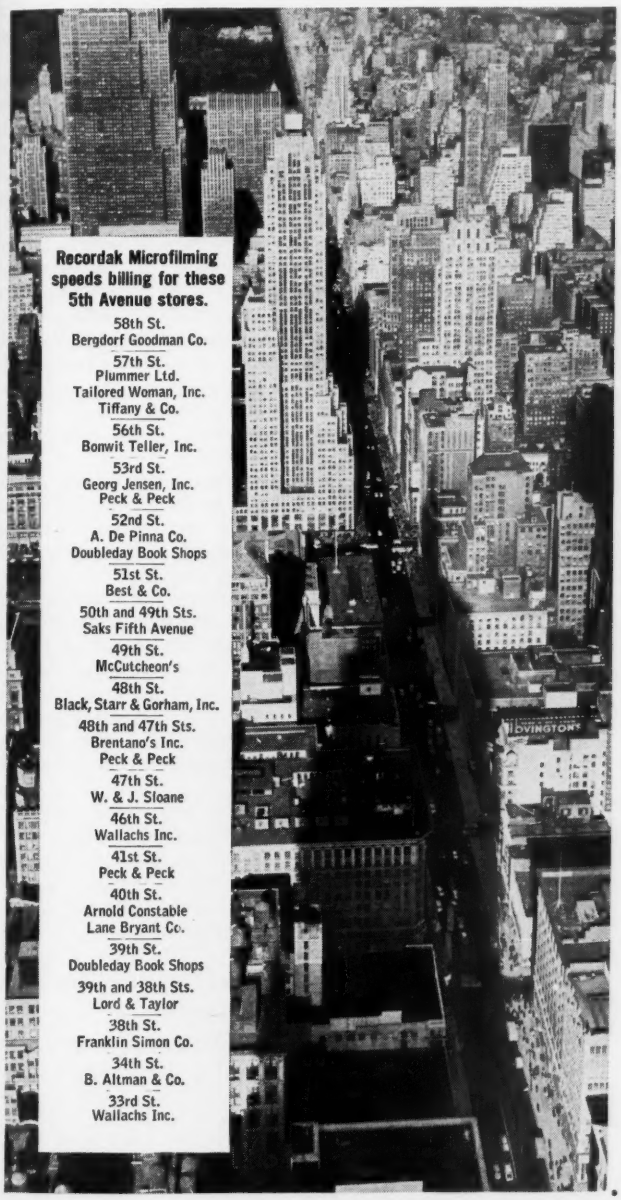
Property Taxes

At least 19 states are carrying on equalization studies to pinpoint differences in the level of assessments among local districts.

—BENJAMIN R. MAKELA

Short cuts with Recordak Microfilming

Latest report on how this low-cost photographic process is simplifying routines for more than 100 different types of business . . . thousands of concerns



HOW FAMOUS 5th AVENUE STORES CUT BILLING COSTS, INCREASE GOOD WILL

New York, N. Y.

Take a stroll down 5th Avenue. Drop into any of the renowned stores and shops. Chances are they're using Recordak Microfilming to bill charge-account customers.

Reason for this—

Microfilming the customers' saleschecks—and sending them out with the bills—eliminates a description of each purchase and a listing of each price. Only the sales check totals and credits go on the bill. This cuts posting operations as much as 85%. Complete film record of all accounts can be filed at fingertips—ready for immediate review in Recordak Film Reader.

Customers, on the other hand, find it much easier to recall charges with the original sales checks in hand. Questions about bills are reduced by as much as 80%.

It's much the same story off 5th Avenue—a few doors away you'll find Abercrombie & Fitch, Brooks Bros., Stern Bros., Liberty Music Shops . . . and so it goes. Not only in New York but Anywhere, U.S.A. For it pays retailers with as few as 2500 charge accounts to use Recordak Photographic Billing.

Free booklet "Short Cuts that Save Millions," shows how you can save with Recordak Microfilming regardless of your type of business.

"Recordak" is a trademark

RECORDAK

(Subsidiary of Eastman Kodak Company)

originator of modern microfilming—
now in its 30th year

New Recordak Reliant Microfilmer gives you up to 80 pictures for 1¢

MAIL COUPON TODAY

RECORDAK CORPORATION
415 Madison Avenue, New York 17, N. Y.

Gentlemen: Please send free copy of "Short Cuts that Save Millions." V-5

Name_____

Position_____

Company_____

Street_____

City_____ State_____

Participation Stressed as Planning Element in Case Study by Controllership Foundation

THE IMPORTANCE of participation as a key to achieving planned profit goals is emphasized in a case study now being distributed to members by Controllership Foundation, Inc., New York, research arm of Controllers Institute of America. Entitled "Management Planning and Control: the H. J. Heinz Approach," the 113-page report describes the profit-planning methods which have enabled that food-processing company to increase its consolidated net income as much as 60 per cent above the annual averages for the past five years.

"The philosophy which underlies the company's profit planning or budgeting program is relatively simple," the Foundation study observes, "but is essential to establishment and operation of a successful system. Those who are responsible for performance and achievement of the profit goals must participate in developing the plans. The Heinz system is one whereby business plans are screened, evaluated and reduced to realistic, attainable objectives in a well-coordinated program of action. The responsibility for their attainments is then specifically delegated to those most logically responsible for results—those who have had an opportunity to participate in the planning and development of these activities."

The "practical working tool" in the H. J. Heinz system is its annual operating plan or budget. The parent company in the United States and its three foreign subsidiaries each has a plan of its own. The plans are prepared in considerable detail for each company, each sales region, territory and branch; each warehousing and other distributive facility, as well as for each factory or other processing facility, department, production or cost center in plant or office. Corresponding capital needs and sources are planned for such specific points. With reference to the merchandising side, plans and profit goals are set for major products, product groups and product mixes. The annual plans tie in with rolling five-year plans relating to operations and capital expenditures, capital requirements, cash requirements and return on investment.

The plans originate with the operating and marketing divisions, in the form of programs based on their individual forecasts, and are then welded into one by the Comptroller's Division, through its Profit Planning Department. As the case study points out, "This division is wholly responsible for putting together the company's profit budget and cash plans and for measuring results, by divisions and total company, against such operating programs.

"The Profit Planning Department also is responsible for formulating the techniques and methods whereby the program can be developed and implemented in an orderly, organized manner. This department also does all it can to aid each division and department in planning their respective budgets and standards. It develops historical and statistical data which may prove useful to the divisions and makes these data available to them for their guidance.

"Once the budgets and programs have been approved for a fiscal year they become the base against which operations are measured for accomplishment. Each month the Profit Planning Department prepares a series of operating statements, charts and tables. Important variances are set forth with sufficient detail to explain the causes. These statements are presented to the Operating Committee by means of projecting equipment and are discussed and explained by the manager of the Profit Planning Department. Members of the Operating Committee discuss and evaluate the various statements and develop plans for action."

In addition to profit planning, the case study presents portions detailing the company's management planning and control objectives and methods; its cost planning and control practices, and its procedures of cost estimating in planning and control. Appendices include the formal statement of policies and objectives of the company; an index of charts used in presenting the fiscal year 1957 budget to the board of directors, and lists of topics discussed at typical staff meetings of the various divisions.

Copies of the case history, priced at $3.00, are obtainable at the Foundation's offices, 2 Park Avenue, New York 16, N. Y. The report is the sixth in the organization's series on management planning and control.

Newspapers Carry Pfizer's Annual Report

Chas. Pfizer & Co. used a 16-page Sunday supplement in the March 31 issue of the *New York Times* to present its annual report. The report was also published in the Sunday, April 14, editions of the *Chicago Tribune* and the *Los Angeles Times*. Printed copies of the annual report were mailed in mid-March to the company's 22,000 stockholders.

Half of the 16-page supplement featured multicolor illustrations of the work of Pfizer in drugs and pharmaceuticals and articles illustrated the range of the company's products. The section also includes the usual balance sheet and earnings statement. This is the first known use of a newspaper supplement to carry the regular financial report of a company.

Dates Ahead

MARK YOUR CALENDAR

CONTROLLERS INSTITUTE OF AMERICA

Date	Conference	Hotel	City
MAY 15-18	Eastern	Sheraton	ROCHESTER
NOVEMBER 1-4	Annual National	Greenbrier	WHITE SULPHUR SPRINGS, W. VA.

OTHER ORGANIZATIONS

MAY 12-15	NATIONAL OFFICE MANAGEMENT ASSOCIATION 38th International Conference	LOS ANGELES
MAY 26-29	INSTITUTE OF INTERNAL AUDITORS	LOS ANGELES
JUNE 24-28	XI INTERNATIONAL MANAGEMENT CONGRESS	PARIS, FRANCE
JUNE 26-28	NATIONAL MACHINE ACCOUNTANTS ASSOCIATION	CHICAGO

Improving Human Relations

The foreman—as a supervisor skilled in human relations—holds the master key which will unlock greater productivity on the part of American industrial workers, the National Association of Manufacturers said in a new booklet entitled "Improving Human Relations."

Pointing out that the success of a company "rests heavily on how well the management group performs in achieving person-to-person understanding," the booklet emphasizes that the supervisor, as a member of management, must "listen" to employes and understand their needs.

It is most important for supervisors to listen to employes with understanding and try to interpret what they have to say, whether it is just a gripe, a more serious complaint, a suggestion, or the expression of an opinion. Thus supervisors can identify friction spots that need clearing up and can "build the team spirit so essential to lower costs and greater productivity."

The booklet points up the possibilities of getting cooperation and building good work habits through the wise use of praise and a "pat on the back" where warranted (as distinguished from flattery). It urges genuine interest in employes as individuals, apart from their function as "producers."

Sound personnel policies, enlightened leadership and effective day-to-day communication between all levels of management are the ingredients of good human relations in the plant.

"Obviously," the NAM booklets says, "the company must rely on communication to secure cooperation, to convey an understanding of its policies and plans, to improve the quality of its product or services, to cut its cost and to build the morale of its employes."

The booklet presents practical steps to guide management in giving foremen and other supervisors the kind of training, education, and support they need to fulfill their vital function. Copies are available at 50¢ each from the NAM Employe Relations Dept., 2 East 48th St., New York 17.

Why Employes are Fired

Absenteeism and poor performance on the job were the reasons for discharging employes mentioned most frequently by 129 personnel officers who participated in a survey conducted by the American Management Association's Management Information Service. Of the 129 persons reported discharged, 84 were men and 45 were women; 52 were covered by union contracts when discharged and 77 were not; 38 were employed in salaried nonsupervisory jobs while 87 were hourly workers.

Absenteeism was responsible for 35 firings and poor job performance was blamed in 28 cases. However, 33 respondents cited more than one reason for discharging the same person. More than half the discharges for absenteeism occurred because the individual "lost too much time" while 12 occurred because the worker was away from the job in violation of company rules or customs, evidently in each case a single absence involving a flagrant violation. The survey indicates that male workers are more often discharged for absenteeism than female workers although many statistical surveys have indicated that absenteeism is more prevalent among women employes than among men.

The survey results suggest that women are fired for poor job performance about twice as often as men. Exactly half the discharges for this cause alone were women. More than half the multiple responses mentioning poor job performance were reports of the firing of women.

The survey indicates that women are much more likely to be fired for a combination of factors than are men. The 19 women discharged for multiple reasons constituted more than 43 per cent of the female discharges reported, while the 14 men fired for a group of causes made up less than 15 per cent of the male dischargees reported.

The more detailed descriptions of the firings given by many of the survey respondents suggest that men are more inclined to commit one major infraction of a rule or custom and be fired for it while women are more likely to be discharged for a combination of several minor causes.

How FAST is RUSH?

With constantly rising clerical costs, slow manual methods are today as obsolete in the office as they are in the plant.

However, with automatic procedures and the latest punched-card tabulating facilities available through Statistical service, it's no problem for any company to get vital facts and figures faster, more accurately and at lower cost. Through this practical approach, you can automate office procedures to keep pace with production requirements.

If you operate your own tabulating department, Statistical is always ready to take care of your overloads and special assignments or provide helpful counsel in exploring better methods for speed and economy.

"RUSH" means *RUSH* when it comes to reports that affect so many facets of your business. Statistical service is geared to help you meet the tightest schedules. Even if it means working for you nights and week ends.

Just phone our nearest office for fast action.

stc

STATISTICAL
TABULATING CORPORATION

Established 1933 · Michael R. Notaro, President

TABULATING · CALCULATING · TYPING
TEMPORARY OFFICE PERSONNEL

CHICAGO
53 West Jackson
HArrison 7-4500

NEW YORK
80 Broad Street
WHitehall 3-8383

ST. LOUIS
411 N. Tenth St.
MAin 1-7777

NEWARK
National-Newark Bldg
MArket 3-7636

CLEVELAND
1375 Euclid Ave.
SUperior 1-8101

Why Overwork Your Filing System

. . . and "underwork" its usefulness

Often an aggravated filing system can cause not only a headache, but loss of time and money as well. This might be a result of misfiles, unnecessary duplication, or lack of space due to retention of obsolete material.

The problem of overworked files is more **easily solved** than you might think. Proper organization and establishment of controls can be accomplished with dispatch in the skilled hands of a professional service. RECORD CONTROLS, Inc. is ready, and able to tailor your filing system to your particular needs.

Call or write us today for further information. There is no obligation.

We do not sell supplies or equipment.

RECORD CONTROLS, INC.

209 S. La Salle Street, Chicago 4, Illinois

60 E. 42nd Street, New York 17, New York

Canadian Firms Studied

"Big business" is relatively bigger in Canada than in the United States according to a study, "Concentration in Canadian Manufacturing Industries," published by Princeton University Press for the National Bureau of Economic Research. The author of the study, Dr. Gideon Rosenbluth, selected the year 1948 for study as offering the best data available. A simple but reliable index of "concentration" was used: the number of firms which account for 80 per cent of the total labor force in a particular industry. The author says, "Investigations . . . indicate that concentration of employment and output are highly correlated, but that employment concentration tends to be slightly lower than concentration of output."

Wide variations in degree of concentration appeared, but average concentration was high. In half of the industries studied, the 80 per cent were employed by no more than nine leading firms in each case. Since the principle cause of the variation seemed to lie in differences of average company size, Dr. Rosenbluth dug further to see why sizes of firms varied. He identified three important factors associated with differences in concentration: industry size, capital-labor ratio, and importance of transportation costs in relation to other costs. These elements accounted for 62 per cent of the variation in concentration. Dr. Rosenbluth found that large industries tend to be less concentrated in the hands of a few firms than small industries. His results also bolstered the popular notion that where firms are large, high concentration exists, and where firms are small, there is a low degree of concentration.

Substantial similarity between the United States and Canada exists in the relative importance of different industries and in average sizes of firms and plants. Canadian industries, however, were found to be more highly concentrated in a few firms than is true in the United States, apparently because the Canadian industries are much smaller and have fewer firms.

Examination of the long-run trends of concentration in plants showed increases from 1890 to 1920, followed by a stable period between wars, and a wartime peak in 1943. By 1948, plant concentration had declined to a point below prewar levels.

Dr. Rosenbluth concludes that: "The decline in plant concentration between 1922 and 1948 took place in the face of increasing mechanization and of substantial growth in the average size of plants. Decreasing concentration must therefore be ascribed to the fact that total output and employment in the manufacturing industries grew even more rapidly than plant size.

"The growth of manufacturing employment reflects both population growth and the increasing importance of manufacturing in the Canadian economy. Thus, the tendency toward increased concentration, which is frequently expected to follow from the progress of mechanization and increasing plant size, has been counteracted by growth of the market."

Easier Record-Keeping in Sight for Corporations

Reduced burdens on corporations in keeping records and answering government questionnaires are forecast if a proposal by the Advisory Council on Federal Reports is accepted. The Council proposal, which suggests a uniform time limit, probably six years, on retention of most documents and permission to microfilm all records which must be kept longer is now being studied by the Budget Bureau along with comments from interested government agencies. There is no exact figure on what the handling of all types of reports and questionnaires costs business but the Hoover Commission has stated that "the cost imposed on private citizens in business for clerical help, accounting, legal and other expenses runs into hundreds of millions of dollars annually." Cooperation between the Office of Statistical Standards, the government clearing house for questionnaires and forms, and the Advisory Council has resulted in appreciable savings of time and money over the past 15 years. The savings have resulted from reduction in the number of forms required, elimination of certain questionnaires when the information is available from other sources, etc. There are still, however, some 5,000 different federal forms which business firms and private citizens must complete.

The Advisory Council on Federal Reports, established at the request of the Office of Statistical Services (Bureau of the Budget) has as its sponsors a number of national organizations which include the U. S. Chamber of Commerce, National Association of Manufacturers, the National Industrial Council, the American Chamber of Commerce Executives, American Trade Association Executives, the American Retail Federation, and Controllers Institute of America.

The work of the Council is done through committees and special panels, each acting in a different business field. Most of the work between OSS and the Advisory Council starts with OSS. If a government agency proposes a new survey, OSS asks the Advisory Council to help it assess the burden the project would impose. The matter is referred to a committee of the Council and in due course OSS receives its answer. Occasionally, however, the Council takes the initiative in suggesting simplification of reports or eliminating proposed questionnaires.

YUM

"When you have to budget time as well as money with your financial printing, nobody can meet a deadline like Pandick Press—and do it so well. They save you days and dollars!"

Pandick Press, Inc.

Established 1923

22 THAMES ST., NEW YORK
WOrth 4-2900 NY 1-3167

71 CLINTON ST., NEWARK, N. J.
MArket 3-4994

Annual Reports • Brochures • Prospectuses • Registration Statements • Dividend Enclosures
Cases & Briefs • Leaflets • Price Lists • Catalogues • Direct Mail Literature

LEADERS IN FINANCIAL PRINTING SINCE 1923

OFFICERS AND DIRECTORS OF LOCAL CONTROLS held a meeting in connection with the Conference. Chairman of this meeting was C. C. Lay, Chattanooga

Midwestern/Southern Conference *(Continued from page 224)*

not in ratio to base pay or any other formula.

2. In measuring performance, the executive should have specific goals or objectives set for him at the beginning of the year, and his performance should be measured against these goals for objectives. These goals need not be financial or statistical, but they should be the sort of thing that can be objectively appraised.

3. The recipient must be told how his performance was appraised, and this performance must be related to the amount he receives.

4. Only those who perform above average should get plus compensation.

5. The man's immediate superior should be consulted in reviewing his subordinate's performance. He should sit in on the review of that performance when the bonus check is passed out.

Mr. Wallace noted, in conclusion, that compensation must be more personalized if it is to do the job. The plan will have to be designed for individuals rather than for the management team as a whole and the administration of the plan must be equally personalized and related to what the individual produces rather than to what someone thinks of the individual.

CURRENT PROBLEMS IN LABOR RELATIONS

Good labor relations cannot exist unless there is a relative equality in bargaining power and skill between management and labor, said Dr. Carroll R. Daugherty, chairman, Economics Department, Northwestern University, School of Commerce.

There are two main alternatives to achieving equality of bargaining power, he said. "Either you reduce the national union's strength down to that of the individual firm, or else you get the firms to organize and present a united front to the national union, thus building up their strength to equal that of the union. The first course would mean that government would have to decree the breakup of national unions.

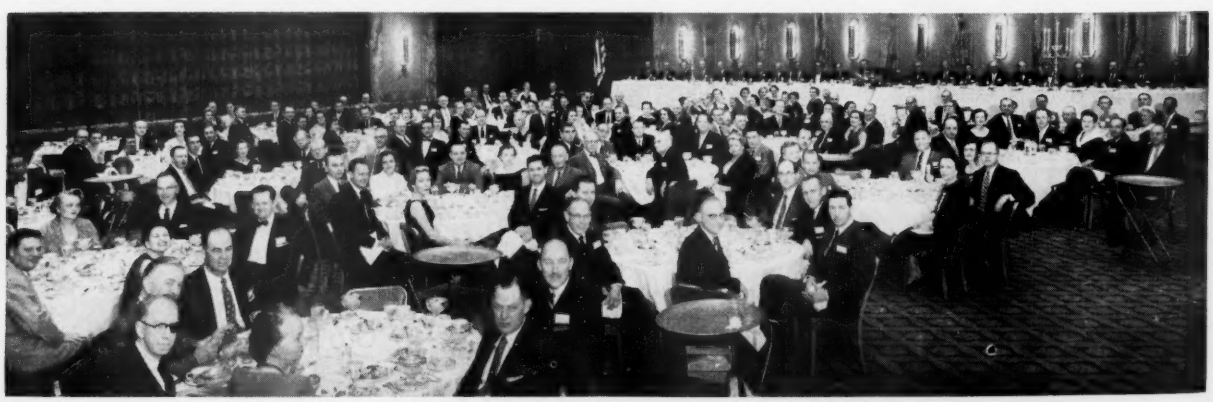
"The alternative means that employers would have to yield some freedom of decision to the group will in labor matters. This seems a small cost compared to the benefits achieved by group power—a conclusion reached a long time ago by employers in the coal, pottery, apparel and certain other industries. It was reached in basic steel after 1951, and is being considered seriously now in automobiles."

Dr. Daugherty opined that the product of such negotiations with unions would be more modest for all under association bargaining. It would give the united employers enough power to demand successfully that only a few general industry-wide matters like wage rates and hours be settled centrally, with local problems and issues being negotiated in decentralized fashion between single plants or firms and their own local union.

Such a program, he believes, is the really fundamental answer to the problem of keeping costs within reasonable bounds, stabilizing companies' competitive positions, and minimizing inflationary pressures from the cost side. Its importance is enhanced by the merger of the AFL and CIO which means greater union strength and tougher bargaining for any employer.

Other speakers were James E. Day, president, Midwest Stock Exchange, Chicago, Illinois, who discussed shareholder relations and Chester Lauck, executive as-

A VIEW OF THE BANQUET at the 1957 Joint Midwestern/Southern Conference



sistant, Continental Oil Company, Houston, Texas, who spoke at the opening luncheon. Three members of the management team of Bell and Howell—J. N. Latter, controller, Herman Stein, Jr., and W. P. Weber—presented a case history of management planning and control at Bell and Howell. The banquet speaker was Tom Collins, vice president, City National Bank and Trust Company, Kansas City, while the speaker at the closing luncheon was Millard K. Neptune, former president, Platte Pipe Line Company, Kansas City, and Sahara Petroleum Company, Cairo, Egypt.

The conference opened with welcoming remarks by General Chairman Donald A. Robertson. The president of Controllers Institute, D. E. Browne, vice president of finance and controller, Lockheed Aircraft Corporation, Burbank, California, presided at the banquet session. Board Chairman Robert N. Wallis, vice president and treasurer, Dennison Manufacturing Company, Framingham, Mass., presided at the closing luncheon.

Other presiding officers were: Thomas M. Mott, vice president and controller, Republic National Life Insurance Company, Dallas, Texas; Charles E. Ehrhardt, assistant controller, Anheuser-Busch, Inc., St. Louis, Missouri; J. Lowell Johnson, controller, J. A. Folger & Company, Kansas City, Missouri; Leland K. McFarland, secretary and treasurer, Kingwood Oil Company, Oklahoma City, Oklahoma; Grant H. Wier, comptroller, Commonwealth Edison Company, Chicago, Illinois; and William B. Harrell, comptroller, Louisville Tin and Stove Company, Louisville, Kentucky.

Newspaper Controllers Spring Conference

Standard procedures for classified advertising revenue accounting and circulation revenue accounting will be outlined at the 1957 National Spring Conference of the Institute of Newspaper Controllers and Finance Officers. This will be the first major report to be made to INCFO members on the two-year project. It will be presented on Monday morning, May 13, at the opening general session of the Conference which is being held at the Atlanta Biltmore Hotel, May 12-14.

Subcommittee chairmen of the board will present outlines on the two subjects, led by M. P. McGill, comptroller, Newspaper Printing Corp. for the Tulsa (Okla.) *Tribune and World*. Charles M. Hupp, general office manager, *New York Herald Tribune*, and George W. McInerney, controller, *Philadelphia Inquirer*, will cover classified advertising revenue. R. A. Kortmann, controller and assistant treasurer, *St. Paul Dispatch* and Pioneer Press, and George D. Wolf, Jr., partner, Wolf & Co., Chicago, will discuss the outline for circulation revenue accounting.

REMEMBER * * MAY IS LILAC TIME IN ROCHESTER

SPONSORED BY THE ROCHESTER CONTROL

HOTEL SHERATON

Program

MAY 16

afternoon Registration—11:00 a.m.-6:00 p.m. Reception and Cocktail Party for members and their ladies—5:00-7:00 p.m.

MAY 17

morning TECHNICAL SESSION—"What Every Executive Should Know About Compensation" *Arch Patton,* principal, McKinsey & Co. "Financial Public Relations" *Lowell E. Pettit,* manager of Investor Relations, General Electric Co. "The GM Approach to Return on Investment" *Henry W. Welsh,* director of Operations Analysis, General Motors Company.

luncheon Speaker: *William Twaits,* executive vice president, Imperial Oil Co., Toronto.

afternoon TECHNICAL SESSION—"Mergers and Long-Range Planning" *William P. Frankenhoff,* partner, Wm. E. Hill & Co. "Supplementary Unemployment Benefits" *Richard Johnson,* Ford Motor Company.

evening BANQUET AND CONCERT—A concert will be presented by an orchestra of soloists selected from the famous Rochester Philharmonic and Civic Orchestras.

MAY 18

morning TECHNICAL SESSION—"A Case Study on Company Planning and Control" *Milton Mengel,* vice president, Product Planning; *Willis Morgan,* vice president, Marketing; *Kenneth Tiffany,* vice president, Finance—all of the Burroughs Corporation.

luncheon Speaker: *Dr. Dwayne Orton,* educational consultant, International Business Machines Corp.

For the Ladies MAY 16—*(5:00-7:00 p.m.)* Reception at Hotel Sheraton for members and their ladies. MAY 17—*(a.m.)* Visit to historic Eastman House and Dryden Theatre; *(noon)* Luncheon, Women's University Club; *(p.m.)* Tour of Rochester's world famous lilac display; *(evening)* Banquet and concert at the Hotel Sheraton. MAY 18—*(noon)* Luncheon at Hotel Sheraton.

OF SPECIAL INTEREST TO ALL

Rochester's display of lilacs, which has won world recognition, will be at the height of its beauty during the time of our conference. We feel sure a visit to the lilac gardens at Highland Park will be most enjoyable.

We should like to suggest a visit to the Eastman House, formerly the home of George Eastman, and now a museum of photography.

For those who wish, arrangements may be made for golf at Oak Hill Country Club, where the 1956 United States Open Golf Tournament was played, or at one of our other fine golf courses.

For baseball fans, the Rochester Red Wings are scheduled to play the Toronto Mapleleafs in a night game on May 16 at Rochester.

At the Annual Meeting of Members of Controllers Institute of America held on April 25, 1957 in San Francisco, California, during the Western Conference, eleven members were elected to serve on the National Board of Directors for a three-year period beginning September 1 from the regions indicated.

NEW DIRECTORS ☆ CONTROLLERS INSTITUTE

BURDETTE A. JOHNSON
Region 1

DAVID F. DEVINE
Region 2

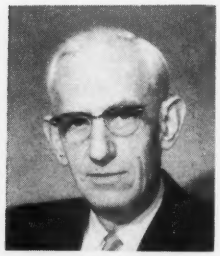
L. KEITH GOODRICH
Region 2

WARREN M. MAULE
Region 2

EDWARD H. EATON
Region 4

J. H. REID
Region 4

EUGENE P. HEILES
Region 6



ALPHONSE J. MAYER
Region 8

CLAIBORNE H. JOHNSON
Region 9

JOHN C. SHEA
Region 9

THOMAS CHAMBERS
Region 10

Controllership Seminar Planned

A two-day seminar on "The Controllership Function" has been announced by the New York City Control of Controllers Institute of America, to be held May 27-28, Vanderbilt Hotel, New York.

Serving as co-chairmen and discussion leaders will be Vernon E. Cuneo, controller, Chemical Division of Food Machinery and Chemical Corporation, New York, and Leon C. Guest, Jr., controller, Sylvania Electric Products Inc., New York.

Among the items on the announced agenda are: Organization for Profit Responsibility and the Controller's Function; Reporting Responsibilities and Procedures; Integrated Data Processing—Its Effect on Reporting and Control Techniques; Interrelationship of Costing Procedures to Management Decisions; Capital Management; and The Controller's Role in Contract Negotiation and Administration.

Management School Opens in Spain

The School of Industrial Organization, the first school in Spain to offer American-style postgraduate training in industrial and business management, has opened in Madrid with American help. The new institution is the outgrowth of a 1953 U. S.-Spanish agreement under which $166,600 has been contributed by the International Cooperation Administration. In addition, about $105,650 in United States-owned pesetas have also been contributed toward the new institution.

Under a contract between the ICA and the University of California at Los Angeles, four American professors will teach industrial management for terms ranging between one year and 18 months. In turn, four Spanish professors will study for eight months each at UCLA, where four other Spanish educators have already been studying.

Eventually, the school of Industrial Organization will have two branches, one for industrial production and the other for business administration. Entrance requirements, as set by U. S. and Spanish educational authorities, require the equivalent of an engineering or economic degree plus several years of experience in industry or business.

Business Systems Conference

The Wharton School of Finance and Commerce, University of Pennsylvania, will hold a conference on Advanced Business Systems, July 8-19, 1957. The first week, dealing with recognition, selection and methods of analysis of business problems has 20 different sessions. The second week, dealing with managerial planning and control through information flow analysis and electronic equipment utilization, has 21 sessions plus a field trip.

Intensive Tax Training Program

A spring intensive tax training program has been announced by the Tax Workshop School and it will be given in two eight-day sessions. The first session will start Tuesday, May 28, 1957 and will continue through Friday, June 17. During this session, these subjects will be offered:

Federal Income Taxation I
Federal Income Taxation II
State and Local Taxation II
Tax Analysis and Research

The second session will start Monday, June 10, and will continue through Wednesday, June 19. During this session, these subjects will be offered:

Federal Corporate Tax Practice
Federal Income Taxation III
Reorganizations and Liquidation

Suggestions made by students who attended the fall 1956 intensive tax training program have been incorporated in the new spring program. These are the principal changes:

Each session will be increased to eight days.

Lecture-discussion seminars under the guidance of a tax teacher, with examples and class participation, will be scheduled for the morning periods (9:00 to 12:00 a.m.) for a total of 24 hours.

Workshop seminars under the guidance of an instructor or a panel group (depending upon the subject) will be scheduled for the afternoon periods (1:00 to 3:30 p.m.). At these meetings, students will consider practical tax problems, their solutions, and the rule or principle of taxation involved. Workshop sessions will be held for a total of 20 hours.

Curriculum and problems will be revamped to cater to the needs of the corporate tax man.

The library (with more reading material) will be open weekdays from 3:00 to 9:00 p.m. and Saturdays from 9:00 to 6:00 p.m.

A certificate, attesting to the successful completion of a subject, will be given to students who fully participate in the tax studies for which they have registered.

For further information about the sessions, address inquiries to the Office of the Director, Tax Workshop School, 480 Lexington Avenue, New York 17, N. Y.

TEI Annual Dinner Meeting

The 13th Annual Dinner Meeting of the New York Chapter of the Tax Executives Institute, Inc. will take place on Thursday evening, May 16, at the Waldorf Astoria Hotel, New York City. The guest of honor and speaker will be the Honorable Percival F. Brundage, director of the Bureau of the Budget. For tickets ($20.00) write to Justus Poggenburg, Room 2205, 60 Wall St., New York 5, N. Y.

HOW XEROGRAPHY and offset duplicating save $500,000 a year for the U.S. Army Signal Corps...

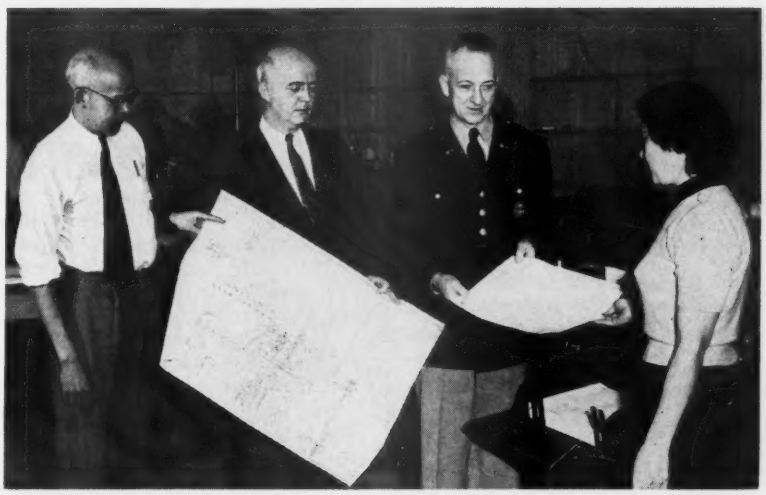


Photo shows typical 24"x36" drawing. Subject is reduced onto offset paper master (right) by xerography to 11"x17" size for runoff of multiple copies on offset duplicator.

The Army Signal Supply Agency, Philadelphia, Pa., is saving more than $500,000 annually by the use of xerography and offset duplicating in reproducing engineering drawings for invitations for bids.

Approximately 200,000 invitations are mailed each year to some 15,000 suppliers. Each invitation contains documents setting forth contractual conditions, specifications, and drawings describing the item desired.

Understandably, turning out the necessary paperwork duplicating and multiple copies of drawings is an important phase of procurement. Under the former method, drawings varied in size from 8"x10½" to 24"x36". Blueprints had to be hand-trimmed and hand-collated, and the consequent assembly of hundreds of sheets of different sizes necessitated special packaging for mailing. Requirements usually exceeded the Agency's reproduction capacity, thereby requiring other facilities and the loss of control.

With XeroX® copying equipment, all drawings are reduced to standard 11"x17" size onto offset paper masters, from which multiple copies are run off on offset duplicators using precut paper. The reduced size drawings are crisply sharp, easier to handle, can be collated by machine, and are 75% lighter in weight, thus reducing postage.

For the Army Signal Corps' dramatic mortar locator, the MPQ-10, for example, 65 suppliers were solicited, each receiving 1,973 drawings or a total of 128,245. The reproduction method formerly used would have required 250 manhours at a cost of $6,040. Using xerography and offset duplicating, job time was reduced to 107 hours and cost only $2,180.

Let us show you with facts and figures how xerography is cutting duplicating costs in business, industry, and government for all types of paperwork duplicating.

WRITE for proof-of-performance folders showing how xerography is saving time and thousands of dollars for companies of all kinds, large and small.

Xerography copies anything written, printed, typed, or drawn. Same, enlarged or reduced size. Copies onto all kinds of masters—paper, metal, spirit, translucent—for duplicating. Copies line and halftone subjects.

THE HALOID COMPANY
57-20X Haloid Street, Rochester 3, N. Y.
Branch offices in principal U.S. cities and Toronto

HALOID XEROX®

A NEW APPROACH TO
BUDGETING
Write for Information
McCORMICK & COMPANY
Consulting Management Engineers
Park Building Yonkers, N. Y.

THE PRESENT VALUE OF YOUR PLANT IS BEST DETERMINED BY AN ENGINEER'S APPRAISAL

■ As Engineers and Architects for Industrial Plants we know construction costs. Dealing constantly with manufacturers of process equipment our appraisal figures on contents are authentic. Let us prepare such an appraisal for you based on the

REPLACEMENT COST NEW
Less Depreciation

Your inquiry is solicited

LOCKWOOD GREENE ENGINEERS, INC.
41 East 42nd Street, New York 17
Boston 9, Mass. • Spartanburg, S. C.

Improving Financial Statements

Financial statements which fairly describe the operations of one company may be misleading when used to make comparisons between companies or industries, writes Oswald W. Knauth in the January 1957 issue of the *Journal of Accountancy*.

Describing the practice of comparative analysis as "not only worthless but dangerous," Mr. Knauth, a former treasurer of R. H. Macy & Company, president of Associated Dry Goods Corporation and a professor at Columbia University, points out that an accountant may be able to conform the reports of one company to a single system for year-to-year comparison purposes, but he cannot make the reports of two or three companies comparable to each other.

The businessman-educator urges accountants to "educate the public to the fact that their reports are based on estimates," and to explain fully the degree and nature of these estimates. He warns that existing investor confidence in accounting procedures might turn to skepticism if a serious business crisis should occur, and recommends that accountants do the following to dispel the generally accepted "exactness" of financial statements:

1. Reports be given in round figures, stopping with the last significant figure.
2. Several estimates be given with each report, depending on various assumptions.
3. Quarterly or semiannual reports be prepared in very rough round figures.
4. Costs be divided between "necessary" and "voluntary"—those allocated to the current year, and those preparatory for future expansion, technical improvement or modernization.

Mr. Knauth stresses his respect for the "remarkable improvement in accuracy and philosophical insight of accountants," but encourages them to prepare reports that the readers need, rather than confine themselves to historic techniques and patterns which do not mirror the ever-changing atmosphere of business practices.

"The methods of accountants are necessarily rooted in the past. Their reports require continuity and similarity, comparable and stable conditions. They cannot revise their principles with every wind that blows, but they also cannot remain unmoved by an earthquake. Management feels no obligation to ease the problems of accountants—rather it is for the accountants to accommodate their methods to the necessity of business. The principles and methods of the past are constantly found wanting and inadequate for the new solutions that are constantly required."

Charging Advertising Expenses

To prevent items being wrongly charged to advertising, according to *Association Newsletter*, the National Association of Bank Auditors and Comptrollers and the Financial Public Relations Association have jointly produced a "white list" of legitimate advertising costs and a "black list" of costs which do not come out of the advertising budget. The first includes such things as advertising space or time; direct mail; advertising aids and materials, and mechanical or production costs. Typical items on the "black list" are athletic teams, convention expenses, memberships, donations, tellers' nameplates and subscriptions. A "grey list" covers borderline items, such as annual reports, house magazines, Christmas currency containers and awards to employes.

Business Expectations

Machine tool builders expect the industry's 1957 shipments to top $800 million, well above 1955 and near the $886 million of 1956. New orders, however, are expected to drop from 15 per cent to 25 per cent below the $924 million total of 1956 to between $650 million-$750 million.

SYSTEMS = PROFITS

★ TOP MANAGEMENT
★ CONTROLLERS AND ACCOUNTANTS
★ SYSTEMS EXECUTIVES AND ENGINEERS

YOU are always in the market for new ideas in systems, procedures and industrial management techniques . . .

Here is YOUR opportunity to use these increasingly important business tools . . .

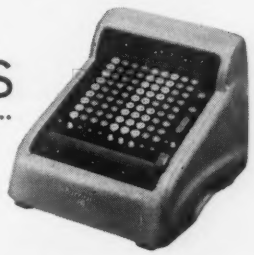
Return the coupon to us and we will send you, without obligation, informative literature and bulletins about the 1957 International Systems Meeting to be held in Los Angeles, October 7, 8 and 9 . . .

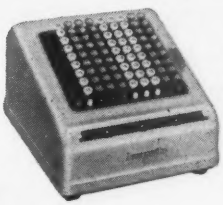
S P A

1957 INTERNATIONAL SYSTEMS MEETING
629 SOUTH HILL STREET • LOS ANGELES 14 • TRINITY 3331

NAME (Please Type or Print)
FIRM
ADDRESS
CITY & STATE
2

"I'm sick of this overtime on payrolls! Invoices! Statistical listings! Now if we only had Burroughs Calculators with those instant-action keys and those simplified keyboards... we could really go to town on high-volume figuring!"





There's a Burroughs Calculator just right for your high-volume figuring—electric or hand-operated. Demonstration? Call our nearest branch. Burroughs Corporation, Detroit 32, Michigan.

Paging the New Books

BUSINESS FORECASTING IN PRACTICE*

Edited by Adolph H. Abramson and Russell H. Mack

Reviewed by BENJAMIN CAPLAN

Business forecasting in the postwar period has displayed many of the characteristics of a "growth" industry. Business is more forecast minded than ever before as attested by the large expansion in the number of business economists and statisticians. Government economists in large numbers are busily occupied in scanning daily the economic barometers and issuing bulletins on the progress of the economy.

There has been such a great proliferation of economic statistics both in range and in frequency that merely keeping abreast of the data virtually requires the full-time efforts of a well-trained economist and statistician. Yet, the common complaint of the forecaster is that there are great gaps in the available range of the statistics and that crucial ones appear too late to be fully useful. And finally, new techniques and approaches have been and are being developed with the objective of improving the quality of forecasting.

Have these postwar developments improved our ability to forecast?

How much closer are we to the day when we can say that business forecasting is a science?

What are the techniques and methods most likely to succeed?

How vital is forecasting to the decision-making process in business?

What are the operative forces that make for changes in business conditions?

Do we have to continue to worry about the problems of business cycles?

In the light of these questions it was a happy idea of Mr. Abramson and Mr. Mack and of John Wiley and Sons to make available to the public the six case studies of business forecasts contained in "Business Forecasting in Practice." The six studies are preceded by two chapters, prepared by the editors, dealing (1) with Business Cycle Theories; and (2) with Techniques of Forecasting.

The case studies were prepared by six well-known business economists. Each economist presents one of his actual business forecasts prepared as part of his operations and accompanies it with an analysis dealing with the following: (1) His causal explanation of the business cycle; (2) his technique of forecasting; (3) the data used and their usefulness; (4) how the business forecast was related to a company forecast; and (5) the impact of the company forecast on company operations.

The six economists represent the following industries: Two from retailing, Federated Department Stores (Silbert) and Jewel Tea Company (Tongue); two from manufacturing, General Electric (Watson) and Procter and Gamble (Wright); and two from finance, Stein, Roe and Farnham (Ross) and Union Service Corp. (Hubbard). Dr. Abramson, himself, is from SKF Industries.

Three of the forecasts dealt with the 1948-1949 recession, three with the 1953-54 recession. It is interesting to note that though there were errors in details each of the forecasts was at least qualitatively basically correct. More on this point later.

Of the variety of techniques available such as time series, critical ratios, surveys, models, patterns of relationship, etc., no forecaster confined himself to a single one. In the main, however, two laid greater weight on what may be called the indicator approach (Hubbard and Wright), and four on the aggregative approach (Silbert, Tongue, Ross and Watson). The indicator approach concentrates on the movements of crucial series such as prices, new orders, etc., whereas the aggregative approach analyzes the major expenditure components, government, investment, and consumption. As a practical matter, most of the forecasters used some combination of the two main approaches.

Most of the writers agreed that many factors operate to bring about the business cycle, emphasizing that the word "cycle" is used in a qualitative rather than a mathematical sense. One writer, Hubbard, found the monetary explanation the most satisfying; another, Silbert, emphasized the role of inventories; and a third, Wright, emphasized the role of wars.

Each writer gave a rather detailed account of the economic data available and some appraisal of what he considered the most significant. This section tended to be quite repetitious since forecasters move within the same matrix of data. Finally, there was some discussion of the relation of the general forecast to the company forecast and its impact on company operations. The last sections of each study were the least satisfactory which reflects, no doubt, the problem of revealing company secrets.

What conclusions can we derive from the book?

First: Forecasting has become more elaborate and requires knowledge of a great amount of statistical information. As a notable exception to the elaboration of detail, Wright's case study may be mentioned. It is written with austere simplicity and emphasizes relatively few factors.

Secondly, and most important: Judgment is still the dominant element in the making of a forecast. As Silbert puts it (p. 134): "In combining the forecasts of the separate key factors into an estimate of total business conditions, judgment plays a more important part than a mathematical formula." We are still seeking a scientific method of forecasting, i.e., one that is invariant with respect to the forecaster.

This very factor makes disappointing the fact that no forecaster analyzed why his judgment went wrong on details. In fact, it would have been most welcome had one wholly erroneous forecast been included in the book and the reasons for the error analyzed. If it were impossible to find such a forecast, then it would have been most illuminating to explain that situation. Could it be that business forecasters form a fraternity whose members exchange views with one another and thus arrive at a correct consensus?

Third: There was little or no relation between a forecaster's forecast and his views on the causes of the business cycle. The two seemed to be rigidly separated in idea-tight compartments. More fundamentally, there was little discussion of what is clearly the problem of our time:

Have we at last gotten rid of business cycles in the prewar sense?

* *Published by John R. Wiley & Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. $6.50.*

Is it true that we have so strengthened our economy with built-in stabilizers and so changed the character of our economy to such an extent that all we need fear are mild recessions of the 1948-49 and 1953-54 variety?

How do we explain the fact that for ten years we have had only these two mild perturbations?

If this is true, what becomes of the relevance of general business forecasting?

Unfortunately, no conclusion is ever certain in economics because lurking in the future there may always be a contradiction. These basic problems are not discussed in this book. These critical comments only make clear the basic importance of this book. For those who want to know how business forecasters operate in practice, this book is highly recommended.

CASE STUDIES IN RECORDS RETENTION AND CONTROL*

Detailed and analytical case histories of the experiences of 13 different companies who have established, or are in the process of setting up, records management programs are outlined in this new study. The companies have been carefully selected to provide variety as to size, profit margin, product and location. Their programs range from simple or formative to highly developed and staffed.

The experiences of these companies will enable the reader to develop, or modify, the records retention program in his own company and to see how other companies answer perennial questions such as the organizational responsibility of a program, when consultants should be used, what information is needed for a records inventory, special steps to protect vital records, and the types of equipment and layout for records storage.

** Published by Controllership Foundation, Inc., Two Park Avenue, New York 16, N. Y. $7.50.*

SUPERVISORY AND EXECUTIVE DEVELOPMENT*

By Norman R. F. Maier, Allen R. Solem, and Ayesha A. Maier

"The greatest need in all training programs that involve the ability to relate with other people," the authors state, "is the opportunity to practice without getting hurt or without hurting anyone." This practice is what the authors supply by means of suggested procedures, typical cases, and dramas that can be enacted by pertinent executive groups. When put into motion, these rehearsals provide the insight, ease, and good judgment for meeting the human interplay that actually occurs on the job.

The role-playing featured in the manual aims to reproduce in advance most of the important features of reality. The sequence of cases, tested and used extensively in industry, education, and government, range from the simplest to the most complex. Several distinct casts of characters and their differing points of view, are fully delineated for use in various skits. Detailed notes suggest the preparations needed for role-playing, the process itself, instructions for observers, the underlying motives to look for, and how to analyze them.

** Published by John R. Wiley & Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. $6.50.*

ACCOUNTING TRENDS AND TECHNIQUES, 1956 EDITION*

This is the 10th Annual Cumulative Survey of the accounting aspects of the annual reports of 600 industrial and commercial corporations to which are added excerpts from, and comments upon, unusual accounting treatments found in 700 additional reports. The reports analyzed are those with fiscal years ending within the calendar year 1955.

** Published by the American Institute of Accountants, 270 Madison Avenue, New York 16, N. Y. $15.00.*

CONTROLLERSHIP AND PEOPLE

A collection of papers presented at the 25th Annual National Conference of Controllers Institute of America, New York City, September 30-October 3, 1956 ..... $1.00*

** Please add city sales tax if order is for New York City delivery*

Contents

"Administering a Program for the Development of People"
by F. P. Hagaman

"Insuring Better Use of the Management Potential"
by Harland N. Cisney

"Basic Concepts for Establishing an Executive Development Program"
by C. Wilson Randle

"Preparing Students for Careers in the Controller's Department"
by Dr. C. W. Bastable

"Auditing Results and Costs of Executive Development Programs"
by Dr. F. F. Bradshaw

"The Controller and the Personnel Director: a Teamwork Approach"
by Wilson T. Seney

"A Company President Looks at Fringe Benefits"
by Allen H. Ottman

"Pensions and Group Insurance"
by J. Leslie Harper

"Various Types of Stock Purchase and Profit-Sharing Plans"
by Paul Brower

"The Guaranteed Annual Wage"
by Abraham Gitlow

"Cost Control and the Guaranteed Annual Wage"
by G. F. Lamb, Jr.

"Possible Tax Savings for Executives"
by C. A. Augat

"Wage Continuation and Sick Pay Plans: Tax Considerations"
by E. P. Hyde

Address orders to

CONTROLLERS INSTITUTE OF AMERICA
Two Park Avenue, New York 16, New York

Statistical Techniques for Financial Planning and Forecasting

(Continued from page 222)

Table 2 General and Administrative Expenses for the Beta Corporation

PERIOD	c_1 IN THOUSANDS	c_2 IN THOUSANDS	E
1	20	6	10,000
2	20	16	11,000
3	18	12	9,000
4	20	10	9,000
5	22	14	12,000
6	18	16	13,000
7	16	18	10,000
8	24	6	8,000
9	24	10	12,000
10	16	14	11,000
11	26	10	11,000
12	26	8	8,000
13	22	4	10,000
14	18	10	11,000
15	22	8	9,000
16	20	14	11,000

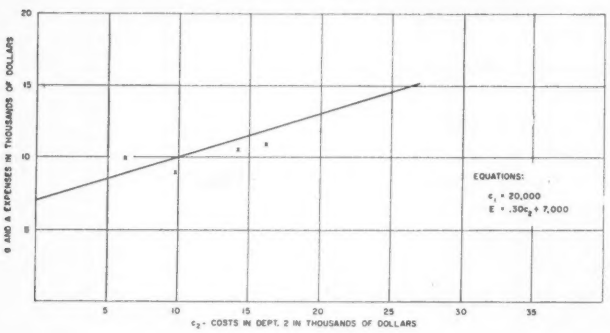
$E = .20c_1 + .30c_2 + 3000$

GENERAL AND ADMINISTRATIVE EXPENSE

So far, we have established ways of forecasting expenses in Department 1 and Department 2, but we have not set up the computation for the general and administrative expenses. In *Table 2,* general and administration expenses for the Beta Corporation are shown for the past 16 months. The first column shows c_1, or the expenses in Department 1; the second column shows c_2, or the expenses in Department 2; and the third column shows E, the general and administrative expenses. The question is how to relate these general and administrative expenses to the departmental costs c_1 and c_2.

Let us note from *Table 2* that in the accounting periods 1, 2, 4, and 16, departmental expenses for the first department are $20,000. In the same accounting periods, the departmental expenses in Department 2 vary, and are $6000, $16,000, $10,000, or $14,000, respectively. We now prepare a graphical representation as in *Figure 10.* The small crosses show the variation in general and administrative expenses for those accounting periods where the departmental expenses in Department 1 are $20,000. We can approximate the general and

FIGURE 10—General and administrative expenses—Beta Corporation



administrative expenses with the aid of a straight line as shown in *Figure 8,* and write

$$E = .30c_2 + 7000. \quad (25)$$

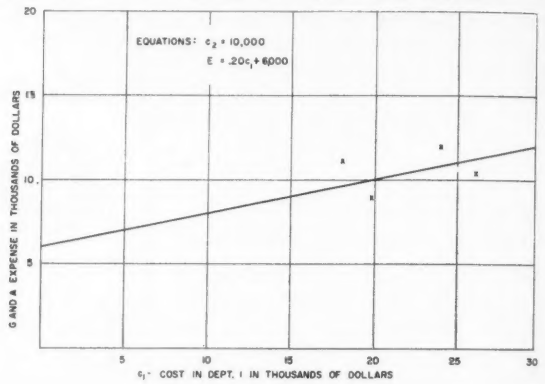
Let us now take the accounting periods 4, 9, 11, and 14. In these periods the departmental expenses in Department 2 are $10,000. We prepare a diagram as shown in *Figure 11.*

This diagram represents general and administrative expenses for the Beta Corporation for those accounting periods when the departmental costs in Department 2 are $10,000. We can again approximate general and administrative expenses with the aid of a straight line and use the formula

$$E = .20c_1 + 6000. \quad (26)$$

Such a formula is useful in forecasting general and administrative expenses for a few accounting periods; that is, it will work only when departmental costs in Department 1 are $20,000, or when departmental costs in Department 2 are $10,000.

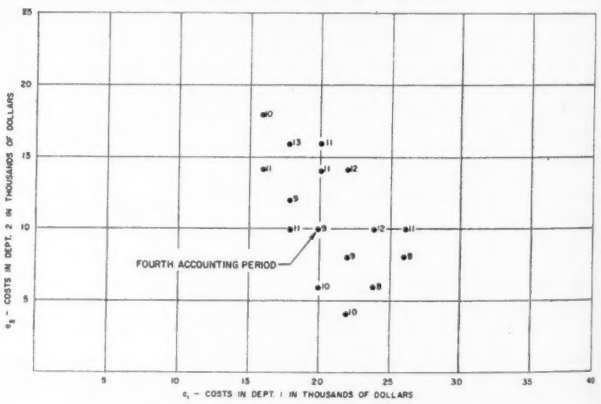
FIGURE 11—General and administrative expenses—Beta Corporation



FORMULA FOR ALL PERIODS

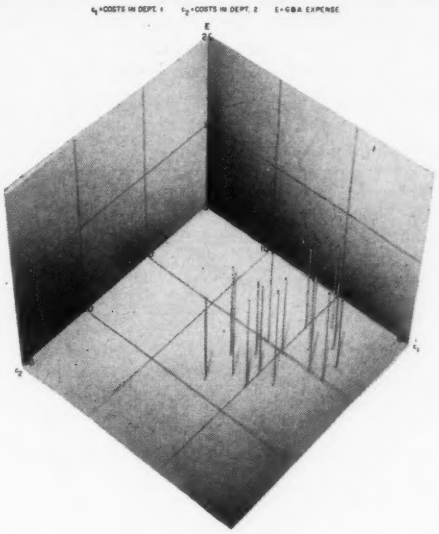
The question now is, how can we get a formula that will handle all accounting periods? The first step in the preparation of such a formula is shown in *Figure 12.* Here, the horizontal axis is the cost in Department 1, and the vertical axis

FIGURE 12—General and administrative expenses—Beta Corporation (The number shows G&A expenses in thousands of dollars)



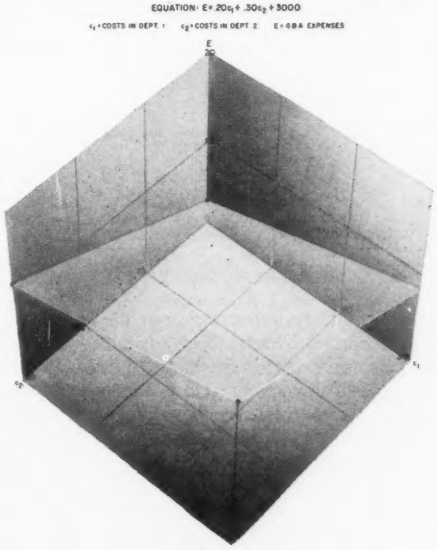
is the cost in Department 2. Each dot in *Figure 12* represents one accounting period. Next to each dot is shown a number which gives the general and administrative expense for that particular accounting period. For instance, we notice in *Table 2,* that in the fourth accounting period, departmental costs in Department 1 are $20,000, departmental costs in Department 2 are $10,000, and general and administrative expenses are $9000. This particular accounting period is pointed out by the arrow in *Figure 12.* A better geometrical representation of this situation is shown in *Figure 13* where each accounting period is represented by a dot, but the general and administrative expense is shown by a vertical rod with the length scaled to the general and administrative expense for each

FIGURE 13—General and administrative expenses—Beta Corporation



accounting period. We have now a dot in three-dimensional space corresponding to each accounting period, and our problem is to express these data by a mathematical formula. A convenient way to do this is shown in *Figure 14,* where the plane is adjusted so that it goes close to each of the dots in our three-dimensional space. We say that this plane approximates general and administrative expenses for the Beta Corporation.

FIGURE 14—General and administrative expenses—Beta Corporation



With the use of analytic geometry, one can compute points on this plane with the aid of the following equation:

$$E = .20c_1 + .30c_2 + 3000. \qquad (27)$$

CONSIDERATIONS IN COMPUTING

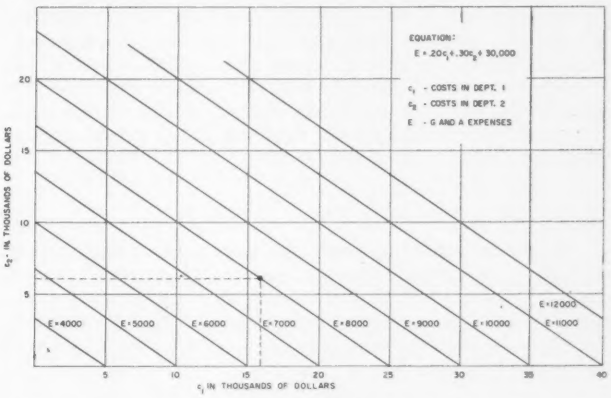
This is, then, the equation that we use to forecast general and administrative expenses for the Beta Corporation. In the language of the statistician, we have here a regression equation between the costs c_1, c_2, and the expense E. A simple computation shows that this equation includes as special cases the previous equations where we computed general and administrative expenses under the condition that departmental costs in Department 1 were $20,000 or when departmental costs in Department 2 were $10,000. In addition, this formula allows us to forecast general and administrative expenses for any other accounting period. For instance, if departmental costs are $16,000 in Department 1 and $6000 in Department 2, then we can compute that the general and administrative expenses are $8000.

Let us notice here that if departmental expenses in Department 1 go up by $1000, then general and administrative expenses will go up by $200. However, if departmental costs in Department 2 go up by $1000, then the general and administrative expenses go up by $300. This means, then, an increment of expenses in Department 2 involves a greater increase in general and administrative expenses than an incremental increase in Department 1.

Suppose the direct labor cost is $15,000 in Department 1 and $5000 in Department 2, what would the general and administrative expense be? We have already computed that costs in Department 1 would be $23,500 and costs in Department 2 would be $9500. Therefore, from Equation (27) we find that the general and administrative expenses are $10,550.

Our graphical representation shown in *Figure 14* is somewhat inconvenient because it is a three-dimensional representation. An alternate way of representing the general and administrative expenses formula is shown in *Figure 15.* The horizontal axis shows costs in Department 1, the vertical axis shows costs in Department 2. Each of the straight lines represents a fixed general and administrative expense line for the Beta Corporation. For instance, we can see from the diagram

FIGURE 15—General and administrative expenses—Beta Corporation



that if costs in Department 1 are $16,000 and costs in Department 2 are $6000, then the general and administrative expense is $8000. This is a more convenient graphical way of summarizing general and administrative expenses for the Beta Corporation.

TOTAL CORPORATE COSTS

Let us forecast the total corporate costs. This is done by adding the costs in Department 1, those in Department 2, and finally, the general and administrative expenses. If we denote by C the corporate costs for Beta Corporation, we have

$$C = c_1 + c_2 + E. \qquad (28)$$

We can use our expression for the general and administrative costs, Equation (27), and get

$$C = 1.2c_1 + 1.3c_2 + 3000. \qquad (29)$$

This is the formula for forecasting corporate costs in the Beta Corporation. For instance, in the case mentioned before,

(Continued on page 246)

Statistical Techniques for Financial Planning and Forecasting

(Continued from page 245)

costs in Department 1 were $23,500 and costs in Department 2 were $9500. From Equation (29) we find that corporate costs for the Beta Corporation are $43,550.

We can also express corporate costs with the aid of the direct labor cost by using our Equations (21) and (24). We get

$$C = 1.2(1000 + 1.5L_1) + 1.3(3000 + 1.3L_2) + 3000 \quad (30)$$

which can be written in the form

$$C = 1.8L_1 + 1.69L_2 + 8100. \quad (31)$$

For instance, if direct labor in Department 1 is $15,000, and direct labor in Department 2 is $5000, the total cost for the corporation is $43,550 which, of course, agrees with the previous computation.

We notice from our equation for the corporate cost that a $1000 increase in labor in Department 1 increases corporate costs by $1800. A $1000 increase in direct labor in Department 2 increases corporate costs by $1690. We could say, therefore, that incremental corporate overhead is 80% for Department 1 and 69% for Department 2. On the other hand, it follows from Equations (19) and (22) that the incremental departmental overhead is 50% in Department 1 and 30% in Department 2. Furthermore, we can see from Equation (27) that incremental general and administrative expenses amount to 20% for departmental costs in Department 1 and 30% in Department 2. Let us, however, remind ourselves that these incremental costs represent only the variable part of overhead. As far as total costs are concerned, we must use our equations in full to take into account the "fixed" part of the overhead costs.

PROFIT PICTURE

Let us look now at the profit picture of the Beta Corporation. First, let us forecast the revenue. Suppose Department 1 has such contracts that for each $1000 of direct labor, $3000 is billed. On the other hand, Department 2 collects only $2500 for each $1000 of direct labor. In mathematical form, the revenue for the Beta Corporation is given by

$$R = 3L_1 + 2.5L_2. \quad (32)$$

For instance, if direct labor is $15,000 in Department 1 and $5000 in Department 2, then the corporate revenue is $57,500. The gross profit is obtained by taking the revenue less the corporate cost. Mathematically this can be expressed as

$$P = R - C. \quad (33)$$

With the aid of our expressions for corporate cost and corporate revenue, this can be written as

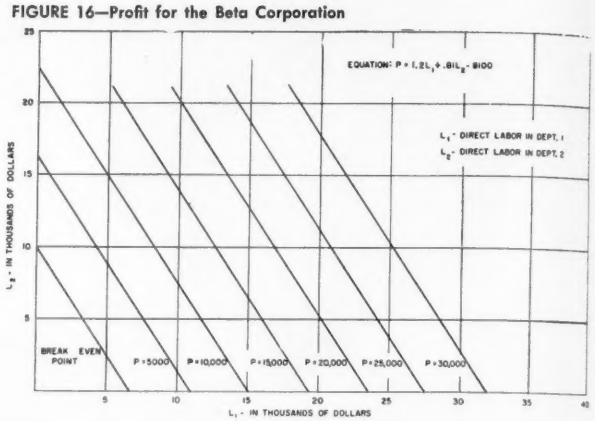
$$P = 3L_1 + 2.5L_2 - (1.8L_1 + 1.69L_2 + 8100) \quad (34a)$$

or as,

$$P = 1.2L_1 + .81L_2 - 8100. \quad (34b)$$

A graphical representation of this profit is shown in *Figure 16*. The horizontal axis is direct labor in Department 1; the vertical axis is direct labor in Department 2. Along each of the straight lines the profit is fixed. For instance, if direct labor is $16,000 in Department 1 and $5000 in Department 2, then the profit is $15,000. We realize that an increase of $1000 of direct labor in Department 1 results in an increase of profit of $1200, whereas the same increase in direct labor in Department 2 leads to an increase of profit of $810. For instance, if management has to make a decision where to put an additional $1000 of labor, then this increase should be introduced in Department 1, as this will result in a higher profit.

FIGURE 16—Profit for the Beta Corporation



ANOTHER METHOD OF PRESENTATION

So far, we have used either graphical or mathematical representation to describe forecasting in the Beta Corporation. Now, we want to discuss another method of presentation which can be more convenient, particularly when the forecasting problem becomes more complex.

FIGURE 17—Cost and profit table for the Beta Corporation

	I	L_1	L_2	e_1	e_2	c_1	c_2	E	R	C
e_1	1000	.5								
c_1		+1		+1						
e_2	3000		.3							
c_2			+1		+1					
E	3000					.2	.3			
C						+1	+1	+1		
R		3	2.5							
P									+1	-1

In *Figure 17* we show a description of the forecasting method for the Beta Corporation. Each accounting entity shown in the first column can be computed with the aid of the accounting information listed in the top row. For instance, the departmental expense in Department 1, e_1, is forecasted by taking $1000 and adding .5 times the direct labor in Department 1, which is listed under the column L_1. The departmental cost in Department 1 can be forecasted by taking 1 times the direct labor cost in Department 1, L_1, and adding it to 1 times the departmental expense e_1. The way we forecast any accounting entity, as shown in the first column, is to take the numbers in the same row and multiply them with the proper heading shown in the top row. For instance, general and administrative expenses, E, can be computed by taking 3000 times 1 plus .2 times c_1 plus .3 times c_2.

Here, then, is a tabular representation that has the advantage that it summarizes all our equations and computational methods. We shall see later that this sort of representation is particularly useful in more complicated forecasting problems.

FORECASTING UNDER GENERAL CONDITIONS

Before we leave our hypothetical Beta Corporation, we develop the forecasting system for a corporation of this type under more general conditions. We assume again that this type of corporation has two departments and, also, general and administra-

tive expenses, but we do not assume a particular rate of overhead in each of these departments or for the corporation. We say that expenses in Department 1 can be computed from the equation

$$e_1 = a_1 + b_1L_1 \tag{35}$$

and expenses in the second department can be computed from

$$e_2 = a_2 + b_2L_2. \tag{36}$$

Departmental costs for Department 1 can be computed from

$$c_1 = e_1 + L_1 = a_1 + (1 + b_1)L_1 \tag{37}$$

and departmental costs for Department 2 can be computed from

$$c_2 = e_2 + L_2 = a_2 + (1 + b_2)L_2. \tag{38}$$

General and administrative expenses are related to departmental costs with the aid of the formula

$$E = A_1c_1 + A_2c_2 + B. \tag{39}$$

Total corporate costs are forecasted by

$$C = c_1 + c_2 + E. \tag{40}$$

This can also be written as

$$C = [(1 + b_1)(1 + A_1)L_1 + (1 + b_2)(1 + A_2)L_2] + [B + a_1(1 + A_1) + a_2(1 + A_2)]. \tag{41}$$

We recognize here that the first term is the variable cost related to direct labor charges in the departments, and the second is a fixed cost term. We assume again that the customer is billed at a fixed rate for each direct labor charge. We say that this chargeable overhead rate is r_1 for Department 1 and r_2 for Department 2. This means that total corporate revenue is given by

$$R = (1 + r_1)L_1 + (1 + r_2)L_2. \tag{42}$$

The profit is computed by taking the revenue less the cost, or

$$P = R - C. \tag{43}$$

This profit can be written now as

$$P = [(1 + r_1) - (1 + b_1)(1 + A_1)]L_1 + [(1 + r_2) - (1 + b_2)(1 + A_2)]L_2 - [B + a_1(1 + a_1) + a_2(1 + A_2)]. \tag{44}$$

We recognize that the first two terms represent the variable part of the profit, whereas the last term is a constant. This last equation is a generalization of the profit equation shown by Equation (34b).

* * *

A good way of summarizing our many equations is presented in *Figure 18*. The rules of forecasting the accounting entities shown in the first column are again the same as in *Figure 17*. For instance, corporate costs, C, can be computed by taking 1 times departmental cost, c_1, plus 1 times departmental cost, c_2, plus 1 times the corporate expense, E. This is a convenient means of depicting the cost accounting system in a corporation which is of the same type as the Beta Corporation.

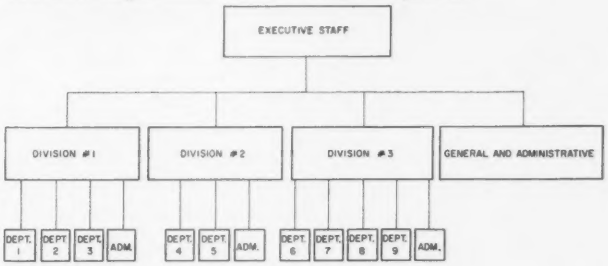
FIGURE 18—Cost and profit table for corporations similar to the Beta Corp.

	1	L_1	L_2	e_1	e_2	c_1	c_2	E	R	C
e_1	a_1	b_1								
c_1		+1		+1						
e_2	a_2		b_2							
c_2			+1		+1					
E	B					A_1	A_2			
C						+1	+1	+1		
R		$1+r_1$	$1+r_2$							
P									+1	-1

BUDGETING AND FORECASTING IN THE GAMMA CORPORATION

Now we know enough mathematics to consider a more complicated corporate structure. As shown in *Figure 19*, the Gamma Corporation has three divisions, and each of these divisions has several departments. There is direct labor and expense in each of these departments just as in the Alpha and Beta Corporations. In addition there are administrative expenses in each of the three divisions. Finally, we have general and administrative expenses on the corporate level.

FIGURE 19—Organization chart for the Gamma Corporation



COMPUTATION OF COSTS

In order to develop a forecasting system, we follow the method we used in the Alpha and Beta Corporations. Let us say that in Department i, direct labor costs are L_i. This is a new trick in our mathematical nomenclature. The small letter i denotes that our notation refers to Department 1, or Department 2, all the way up to Department 9—or, as the mathematician would say, i can take the value of 1 to 9. Then we can say that departmental expenses are to be forecasted with the aid of a straight-line formula, or

$$e_i = a_i + b_iL_i. \tag{45}$$

Departmental costs are obtained by adding direct labor to expenses, and so we get

$$c_i = e_i + L_i = a_i + (1 + b_i)L_i. \tag{46}$$

We now have the departmental costs for each of the departments, and we can proceed to determine divisional expense, say, for the first division. It will be recalled that in the Beta Corporation we did this sort of computation, but in that case we had only two departments, whereas here we have three. What is needed here is, in statistical terms, a "multiple regression analysis." The equation for the divisional expense gets more complicated and can be written in the following form:

$$E_1 = A_1c_1 + A_2c_2 + A_3c_3 + B_1. \tag{47}$$

Total divisional costs are obtained by adding the departmental costs to the divisional expense. For instance, the divisional cost for Division 1 is given by the equation

$$C_1 = c_1 + c_2 + c_3 + E_1. \tag{48}$$

Quite similarly, we can develop divisional costs for Division 2 and Division 3.

The next problem is to develop an equation for the general and administrative expenses for the Gamma Corporation. These will be related to the divisional costs. Following our previous examples, we say that the general and administrative expenses for the Gamma Corporation can be forecasted with the aid of the equation,

$$E_c = f_o + f_1C_1 + f_2C_2 + f_3C_3 \tag{49}$$

where f_o, f_1, f_2, and f_3 are constants similar to the ones appearing

(Continued on page 248)

in Equation (27). Corporate costs are obtained by adding divisional costs and general and administrative costs, or

$$C_c = C_1 + C_2 + C_3 + E_c. \quad (50)$$

CORPORATE REVENUE AND PROFIT

The corporate revenue can be computed by adding the revenues for each of the departments. We denote the revenue for Department 1 by R_1, for Department 2 by R_2, and so on, and then express the corporate revenue by the equation

$$R_c = R_1 + R_2 + R_3 + \ldots + R_9. \quad (51)$$

We again assume that each department bills its customers at a fixed rate of the direct labor and, therefore, we say that the corporate revenue is given by

$$R_c = (1 + r_1)L_1 + (1 + r_2)L_2 + (1 + r_3)L_3 + \ldots + (1 + r_9)L_9. \quad (52)$$

On the right-hand side we have 9 terms corresponding to the revenues in each of the departments.

Finally, the profit for the Gamma Corporation is obtained by taking the corporate revenue less the corporate cost, or

$$P_c = R_c - C_c. \quad (53)$$

CONCLUDING REMARKS

It can now be seen that we have developed here a system of equations relating direct labor and expenses in the idealized corporations, Alpha, Beta, and Gamma. These equations form the basis of a forecasting system to be used in these corporations. A real business firm of medium size is currently adapting this forecasting system to its financial planning.

The main difficulty with the existing forecasting system is that it takes two to three months to complete a forecast and this is considered wholly inadequate for financial planning. The management decided to review this forecasting system and consider the possibility of employing an electronic computer with the intent of shortening the preparation time of two to three months.

After a brief study of the forecasting system, it appeared that there were so many individual decisions made in the course of the computations that it would have been impractical to prepare the forecast on an electronic computer. Consequently, it was necessary to look for some alternate method of approach. A careful analysis of the past accounting data made it apparent that the statistical regression analysis, described in this paper, was particularly suitable to the needs of this corporation. With an analysis of the past data, it was possible to select some major direct and indirect accounts which could be related by regression equations similar to the ones described in this paper. These equations were found sufficiently accurate to meet the forecasting needs of the corporation.

Application of these equations results in vast simplifications in financial calculations and reduces sharply the clerical labor required. Furthermore, the equations can be programmed on an electronic computer, and consequently, the forecast can be prepared with the aid of a computer. Not only is it now possible to complete a forecast in a time period of two weeks, but the forecast can be prepared at substantially less cost.

We believe that the budgeting and forecasting system herein described has many other applications in business and industry. We recognize though that the factors to be related in applying the regression analysis technique may vary in each individual case.

MANAGEMENT PLANNING AND CONTROL:
The H. J. Heinz Approach

Here's your chance:

To find out how an outstanding company employs the basic principles of planning and control;

To find out how these principles are put into an effective coordinated operation;

To use the Heinz Company techniques in your own business—the high degree of decentralization of management planning and control responsibility makes this case study of direct value to small and medium-sized businesses as well as to the giant ones; and

To benefit from the experience of a company that has proved that profits are planned—not accidental.

This new study:

"Management Planning and Control: The H. J. Heinz Approach" is the second in a series of case histories on management planning and control. The first case history in the series, a report on the General Electric Company entitled "Planning, Managing and Measuring the Business" was published in 1955.* Find out how you can apply the Heinz technique to your own business.

SEND IN YOUR ORDER NOW

$3.00

($2.25 to members of Controllers Institute)

* GE STUDY—$2.00 *($1.50 to members of Controllers Institute)*

CONTROLLERSHIP FOUNDATION, INC.

Research Arm of Controllers Institute

TWO PARK AVENUE · NEW YORK 16, N. Y.

Here's BIG BUSINESS Bookkeeping . . .

The New MONROE *President*

With its stunning new President model, Monroe introduces more than a new accounting machine . . . Monroe establishes an entirely new ratio between what you pay and what you get in machine accounting. Now, for the first time, *any* business can enjoy all the benefits of *big business bookkeeping* at a price actually hundreds of dollars less than before! And job changing flexibility is built right into every model in the President line. With the flick of a knob accounts receivable, payroll, cost control, accounts payable . . . all become mechanized operations. Look at the price tag on this machine. Then put your own price tag on what machine accounting can do for you. Speed receivables by getting statements out faster. Build prestige with neat looking records. Put credit data at your fingertips. Control your work so it flows easily and always accurately. Write or telephone Monroe Calculating Machine Company, Inc. General offices: Orange, N. J. Offices throughout the world.

See the MAN from MONROE

for CALCULATING
ADDING
ACCOUNTING
DATA PROCESSING MACHINES

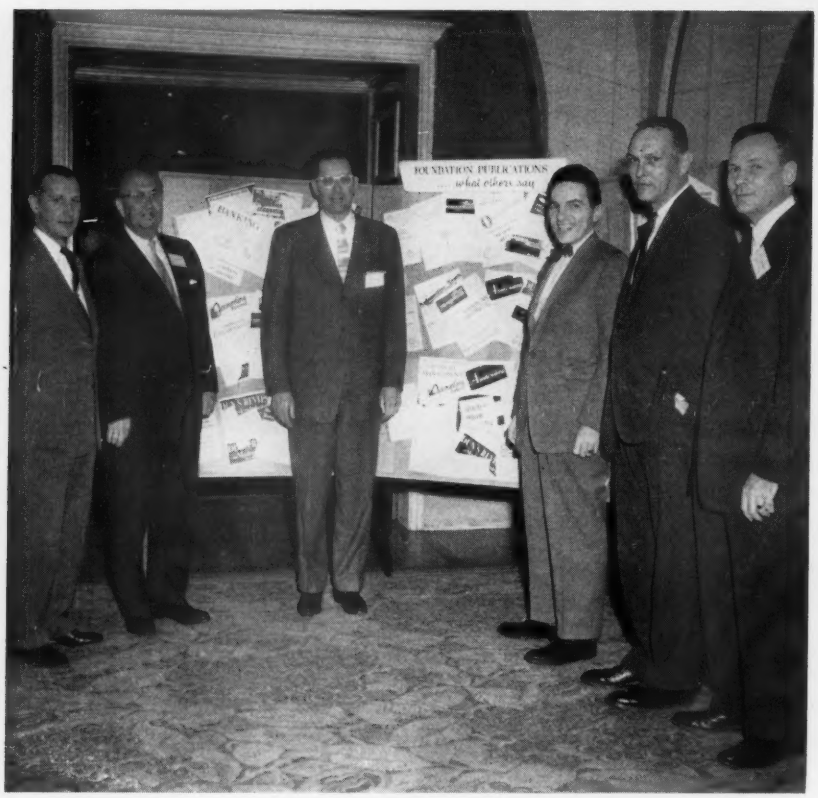
LONG SHOTS & CLOSEUPS WITH THE CONTROLLER CAMERA

Birmingham, Ala. (RIGHT ABOVE)

The Birmingham Control of Controllers Institute of America recently presented the University of Alabama's Commerce School with a plaque to be awarded to an outstanding student. Carson Reeves, president of the Birmingham Control *(center)*, is shown giving the plaque to Dean S. Paul Garner of the Commerce School. Looking on *(left)* is Acting President J. H. Newman of the University of Alabama. The plaque will be presented to the student who has done the most to promote cooperation and outstanding liaison between the Commerce School and the business world.

New York City (LEFT BELOW)

Officers and trustees of Controllership Foundation, research arm of Controllers Institute of America, were snapped at a recent meeting of the New York City Control while examining a display of news clippings, articles and editorials based on recently issued controllership reports of the Foundation.



Left to right are: L. C. Guest, Jr., controller, Sylvania Electric Products, Inc., New York; L. Keith Goodrich, vice president, McGraw-Hill Publishing Co., Inc., New York; R. B. Lewis, vice president and comptroller, Olin Mathieson Chemical Corporation, New York; H. A. Ketchum, financial vice president, Federal Pacific Electric Co., Newark, N. J.; R. L. Dickson, vice president-controller, Walter Kidde & Company, Inc., Belleville, N. J., and A. L. Boschen, vice president and comptroller, Vick Chemical Company, New York.

Mr. Guest and Mr. Lewis are Foundation trustees and members of its Executive Committee. Mr. Goodrich is president of the New York City Control. Mr. Ketchum is president of Controllership Foundation, while Mr. Dickson and Mr. Boschen are vice presidents of the Foundation.

ON FACING PAGE

Chattanooga, Tenn. (RIGHT)

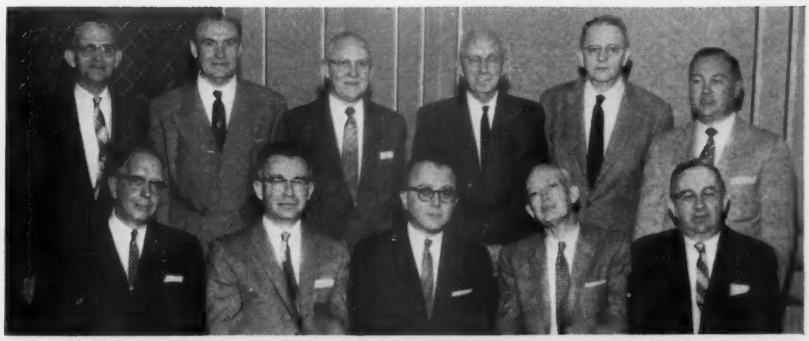
Past presidents of the Chattanooga Control of Controllers Institute were photographed at the 15th Anniversary dinner meeting on April 6, together with the Institute's national president,

LONG SHOTS & CLOSEUPS WITH THE CONTROLLER CAMERA

D. E. Browne, vice president of finance and controller of Lockheed Aircraft Corporation, Burbank, California, and Paul Haase, managing director of Controllers Institute.

Standing *(left to right)* are past presidents Cornelius Bolen (1947-48); E. S. Chodd (1949-50); National Director C. C. Lay (president, Chattanooga Control, 1950-51); J. R. Wilkinson (1952-53); Glenn Stoutt (1953-54); C. W. Smith (1955-56). Seated *(left to right)* are W. A. Jeffords (1945-46); Mr. Browne; Mr. Haase; M. W. Morris (1946-47); and C. Callaway, Jr. (1948-49).

In the group photograph Control members and their wives are shown together with guests, including the vice president of Region IV of Controllers Institute, W. C. Jones of Birmingham, Ala., and Carson C. Reeves, a past president of the Birmingham Control.



Harrisburg, Pa. (BELOW)

George A. Hewitt *(left)*, vice president, National Association of Cost Accountants; Irving Yaverbaum *(center)*, president of Pennsylvania Institute of Certified Public Accountants; and I. Wayne Keller *(right)*, director of the Philadelphia Control of Controllers Institute and controller of Armstrong Cork Company, Lancaster, Pa., were snapped at the 60th anniversary meeting of the Pennsylvania Institute of Certified Public Accountants, recently held at the Penn-Harris Hotel in Harrisburg, Pa. Mr. Keller represented CIA at the gathering. Wilbert A. Walker, vice president and comptroller, United States Steel Corporation, New York, addressed the dinner meeting on "New Challenges for Our Profession."

Cincinnati, Ohio (BELOW)

Students majoring in finance and accounting at the University of Cincinnati, Xavier University and Miami University were guests of the Cincinnati Control of Controllers Institute at a dinner meeting on April 9 at Reid Hall of Miami University. They heard a discussion of the duties of the modern corporate controller, presented by a panel of members, as arranged by Ronald Jeanmougin, chairman of the Education Committee of the Control. Participating on the panel were the Control's president, William G. Barth, vice president and controller, the Cincinnati & Suburban Bell Telephone Co., as well as the members pictured *(left to right)*: Walter A. Smith, manager, Administrative Services, Formica Corporation, Cincinnati; Donald F. Walker, treasurer and controller, Liebel-Flarsheim Co., Cincinnati, and Edwin J. Walter, controller and assistant treasurer, the Osborne Kemper-Thomas Inc., Cincinnati. Education Chairman Jeanmougin, controller-assistant secretary, the Vulcan Cincinnati, Inc., is at the extreme right in the photograph.

CONTROLLERSHIP SEMINAR IN CHICAGO

A two-day seminar on controllership, sponsored by the education committee of the Chicago Control of Controllers Institute was held March 5 and 6, 1957, at the Moraine Hotel, Highland Park, Illinois. This seminar, following the pattern of the one held in 1956, featured such subjects as financial training, IDP, project cost accounting, organizational and personnel problems, systems and procedures, budget administration, internal auditing, as well as current problems of interest in corporate accounting functions. Each session had either a panel or a moderator to lead the discussion but all members of the seminar were encouraged to contribute their thoughts and questions. The reaction of those attending the seminar was uniformly enthusiastic and all members indicated that the idea of the seminar should be continued.

Improved Accounting in the Federal Government Cited in Report

The Eighth Annual Progress Report under the Joint Program to Improve Accounting in the Federal Government covers the period January 1, 1956 to September 30, 1956. Included in the report are representative activities in which the three central agencies (General Accounting Office, Budget Bureau and the Treasury) furnished joint leadership in the government-wide aspects of the improvement program, and other matters of government applicability and significance.

The report points out that Public Law 863 and other financial management legislation were enacted in 1956 to carry out recommendations of the Hoover Commission for the modernization of budgeting and accounting practices of the Government. Internal organizational changes and strengthening of the Bureau of the Budget provided more active leadership within the executive branch in the development of needed improvements in the agencies. A program has been started, the report says, to develop a time-phased plan in each executive agency for the installation and maintenance of better financial management practices.

Other general developments listed in the report concerned central accounting and recording as well as budgeting. The central accounts and certain reports of the Government were expanded to include cash assets and related liabilities for such items as bank balances which government corporations maintain in commercial banks, deposits in transit, imprest and cashier funds, and outstanding checks, etc. The 1958 Budget Document, prepared in 1956, contains cost-based budgets for 46 appropriations, an increase of 42 over the previous year. Such budgets are based on accrual accounting systems used by the agencies.

In the field of electronic data processing, the General Accounting Office initiated a survey, to be completed in 1957, of the present and planned use of such systems. The inventory compiled from the survey, the development of criteria to be used in the future application of electronic methods, and analysis of the effect of this new medium on existing operations and requirements will be coordinated by the General Accounting Office, the Bureau of the Budget, and the Treasury Department under the Joint Accounting Program.

Actual EDP applications cover operations in several different agencies. The Treasury started the first phase of an electronic system for processing the payment and reconciliation of 350 million checks annually in August 1956. Complete application is scheduled for 1957.

The Bureau of Old-Age and Survivors Insurance installed an electronic data-processing machine and related equipment in 1956 for the maintenance of 100 million accounts on magnetic tape and the electronic production account data.

Payroll processing operations in the FBI have been converted to EDP and the Post Office Department is developing plans to convert its mechanized Postal Money Order System to an electronic data-processing system.

The Army signal corps has installed an EDP system in its inventory management program and in some Defense Department activities programs are being studied for the application of electronic equipment to entire accounting processes including payrolls, inventories, costs, billing and general accounting.

Examples of individual agency progress in improved accounting procedures are given in Part II of the Eighth Annual Progress Report. Highlights of these agency reports include the following items:

The Bureau of the Census has installed a revised accounting system on a cost basis, and has made revisions in its budget structure resulting in a simplification of the allotment pattern and a more consistent classification in programming, budgeting, accounting and reporting.

Over 40 Finance and Accounting Offices were established in Army installations, bringing the total number of such offices to 263. In the Department of the Navy, five additional classes of material amounting to approximately $800 million were included in the Navy Stock Fund.

The Department of the Air Force has extended the Depot Maintenance Management Improvement Program, tested at

one depot last year, to nine other depots and the general pattern has shown an increase in productivity of about 30 per cent.

Dollar savings claimed by the various agencies to be attributable to improved accounting programs included the following items:

The General Accounting Office estimates it will eventually save $600,000 a year by releasing or reassigning personnel who have been working in claims settlement. The Department of the Army saved $1.5 million through improved management and related accounting and cost control systems at locations financed by industrial funds. The Department of the Navy also reported savings of about $1.5 million at similar Navy locations.

An improved procedure for certifying earnings for disability claims in the Bureau of Old-Age and Survivors Insurance will save $62,000 annually. Immediate savings of $147,000 resulted from improved procedures relating to eight million accounts of the Bureau of Old-Age and Survivors Insurance; annual recurring savings of $28,000 are estimated.

Improved check preparation processes in the division of disbursement, Treasury Department, resulted in savings in excess of $100,000 during 1956 and annual savings of about $25,000 are estimated to result from improvements in accounting for transactions of disbursing officers in foreign areas.

Finally, improvements in accounting for public debt transactions in the Bureau of the Public Debt will make possible annual savings of $36,500.

Universal Par Clearance Now Before Congress

The Omnibus Banking Bill, introduced by Senator Robertson and pending before the Senate Banking Committee, would extend the par clearance provisions of the Federal Reserve Act to all insured banks under the FDIC, whether members of the Federal Reserve System or not. Since most banks in the country are members of FDIC, this would in effect amount to a provision for universal par clearance.

At present, there are more than 2000 banking outlets in the country who allow only 90 or 95 cents on the dollar (or deduct $1.00 to $1.25 per thousand for larger amounts) on checks to out-of-town points, even though their depositors pay—and intend payees to receive—the full amount. Total losses to creditors each year from these hidden charges are estimated to be well up in the millions.

APPRAISALS

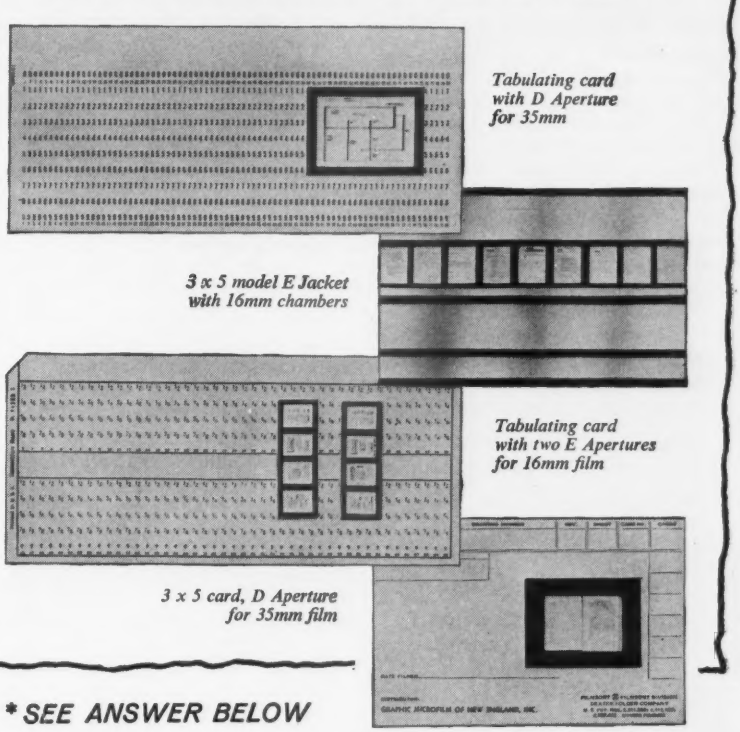
NATIONAL ORGANIZATION OF APPRAISAL ENGINEERS

STANDARD APPRAISAL COMPANY

BOSTON PHILADELPHIA PITTSBURGH — **6 CHURCH STREET NEW YORK, N. Y.** — ATLANTA CHICAGO ST. LOUIS

QUESTION?

Which of these Filmsort Cards is used for Personnel Records?*


Tabulating card with D Aperture for 35mm
3 x 5 model E Jacket with 16mm chambers
Tabulating card with two E Apertures for 16mm film
3 x 5 card, D Aperture for 35mm film

*SEE ANSWER BELOW

FILMSORT is the original, most complete and most versatile group of systems for filing, sorting, reproduction and enlargement copying of microfilmed records of all types.

The Filmsort Aperture and Jacket cards shown here represent several different Filmsort systems for converting microfilm into an active record medium. Here are Aperture cards for engineering drawing control in large or small companies; a card for filing one to four documents on 16mm microfilm; a 16mm Jacket card for multiple document files.

*The 3x5 16mm Model E Filmsort Jacket is ideal for most personnel records. Up to 30 documents filmed at a 22x reduction can easily be filed in a single card indexed alphabetically or numerically for incorporation in an active card file. The material is greatly condensed, yet readily available for reference in a card reader without removal from the Jacket. Enlargement prints can be made direct from the film if required—and it is simple and practical to add to the file at any time subsequent to the initial filming and microfilling process.

One—or more—of the Filmsort systems for unitized microfilm will answer your records problems. For complete information on Filmsort Unitized Microfilm Equipment and Supplies, see your local Filmsort distributor.

FILMSORT®

DIVISION OF
DEXTER FOLDER COMPANY
A Division of Miehle Printing Press and Mfg. Co.
Pearl River, New York

Research Notes

Records Retention and Control

Case studies of the experiences of 13 companies in records management are outlined in a new study to be released by Controllership Foundation, Inc., research arm of Controllers Institute.

The companies selected vary as to size, location, profit margin, and products. Their records management programs range from simple or formative to elaborate and highly staffed.

The experiences of these various companies can enable one to develop, or modify, the records program in his own company to suit individual needs and problems. The experiences of the 13 companies will help answer perennial questions in records management such as:

Which department should have responsibility for a program?

When should consultants be used?

What is the logical order for putting into operation a program of records management?

The experiences of the various companies will show what information should be compiled in taking a records inventory and will give guides as to the standards to be followed in appraisal and analysis of existing records.

Other pertinent questions answered in the study relate to vital records and the special steps that should be taken to protect them as well as the physical equipment necessary for records storage.

Copies of "Case Studies in Records Retention and Control" are available from Controllership Foundation, Inc., Two Park Avenue, New York 16, N. Y., at $7.50 per copy.

At last, solid comfort and posture support in a "high" chair! Big, soft, foam rubber cushioned seat. Foam rubber cushioned backrest curved to snuggle into the small of the back and give firm support. Footring located for comfort and welded to frame for stability and safety. This chair is available in three adjustable seat heights ranging from 20"-24", 24"-28", 28"-32". Ask your Sturgis dealer to show you the No. 837 High Master. The Sturgis Posture Chair Company, Sturgis, Michigan. Address inquiries to The Sturgis Posture Chair Company, General Sales Offices, 154 East Erie Street, Chicago 11, Illinois.

This Electronic World

The First National Bank of Atlanta has asked 11 leading electronic manufacturers for bids on a complete electronic bookkeeping system.

•

Underwood Corp., manufacturers of the Elecom 125, has decided to concentrate on small-scale computers instead of giant ones. The change in accent will place added stress on the company's Elecom 50 computer, which sells in the $25,000 range, and its Dataflo equipment, a system using punched paper tape. The 125 sells for more than $300,000.

•

Monroe Calculating Machine Company, Inc., has announced a new duplex calculator, the 88-N which includes the "memory" or accumulating dials as well as selective automatic division and three-factor multiplication.

•

IBM has announced the development of an electric typewriter designed for use as an input and output device for the data-processing field. The new typewriter automatically types at a rate of 120 words a minute and can be used in conjunction with computers as well as with measuring and recording instruments, scales and meters in such applications as engine testing, liquid flow through pipelines, production control, wind-tunnel research and others, to provide a visual record. The input-output typewriter is operated by a series of electromagnets and solenoids mounted beneath the keyboard. The magnets and solenoids act as receivers of signals transmitted from the controlling device, or computer, and automatically actuate keyboard functions of the typewriter.

Aid to Education

The California Bank, Los Angeles, California, has formed a scholarship program with participation by six privately endowed schools in the state of California. Scholarships are designed to assist deserving young men in their junior and senior years who are planning to follow a business career. Selection of the scholarship recipient rests with the participating school and the schools were chosen on the basis of the number of graduates presently employed by California Bank. Each student selected will receive $500 during his junior year and $500 during his senior year toward the cost of his tuition. An additional annual cost-of-education grant will be given each school for each scholarship awarded.

•

The United States Foundation, Inc., the aid-to-education foundation of U. S. Steel Corporation, has increased its donations for 1957 to more than $1.8 million compared with $1 million a year ago. The grants will go to more than 600 privately supported liberal arts colleges, universities, technological institutions and medical schools.

Fringe Benefits

Eastman Kodak Company has declared a wage dividend of about $35 million to its 50,800 employes. Eligible persons will receive $31.75 for each $1,000 of wages during the five years 1952-1956.

Pension Funds

Public and private pension funds now have reserves totaling more than $70 billion, ten times more than in 1940. Assets of these funds are being increased now at a rate of $6 billion annually. Some 15 million persons are now drawing benefits under public or private programs, compared with three million in 1940.

Stock Exchange Terminology

A glossary, called "The Language of Investing," has been issued by the NYSE. Containing the 240 "most commonly used" investment expressions the glossary is intended to make stock transactions more intelligible to the occasional investor. Many terms, such as "crash," "watered stock" and "pyramiding" were omitted.

Will your interests abroad go up in smoke?

Could fire, lightning, explosion or wind threaten the security of your business overseas? Not if you are adequately insured through AFIA.

For AFIA specializes in fitting protection to the individual needs of your business. It also specializes in seeing that your insurance meets the exacting requirements of liability, compulsory property insurance, and other strange laws of the countries where your risks may be located.

To feel secure, be secure. Protect your overseas interests through AFIA —one of the largest and strongest organizations of its kind in the U.S.A.

AFIA

AMERICAN FOREIGN INSURANCE ASSOCIATION

161 William Street • New York 38, New York

CHICAGO OFFICE..Insurance Exchange Building, 175 West Jackson Blvd., Chicago 4, Illinois
DALLAS OFFICE.....400 Vaughn Building, 1712 Commerce Street, Dallas 1, Texas
LOS ANGELES OFFICE.....3277 Wilshire Boulevard, Los Angeles 5, California
SAN FRANCISCO OFFICE..Russ Building, 235 Montgomery Street, San Francisco 4, California
WASHINGTON OFFICE....Woodward Building, 733 15th Street, N.W., Washington 5, D.C.

An association of 22 American capital stock fire, marine, casualty and surety insurance companies providing insurance protection in foreign lands

Personal Notes

TOP MEN . . .

Clarence A. Bickel has become president of his company, Robert W. Baird & Co. Inc., Milwaukee, Wis. Mr. Bickel is a past president of the Milwaukee Control of Controllers Institute.

NEW CONNECTIONS . . .

C. C. Combs recently became treasurer of Shell Oil Company, New York. . . . **J. Sterling Davis** is controller of Blaw-Knox Company, Pittsburgh, Pa. . . . **George Ingram, Jr.** recently joined Raytheon Manufacturing Company, Waltham, Mass., as controller. . . . Lever Brothers Company, New York, has announced the appointment of **Alan W. Drew** and **William A. Saunders** as assistant comptrollers.

PROMOTIONS . . .

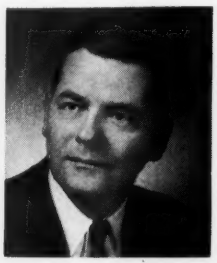
Willard A. Giddens has been elected vice president and treasurer of the Hupp Corporation and will move to the company's Cleveland, Ohio, headquarters. . . . **Theodore F. Gloisten** recently became vice president and treasurer as well as chairman of the Executive Committee of American Home Magazine Corporation, New York. . . . **Judson G. Hyde** is now treasurer-controller of his company, Sperry Products, Inc., Danbury, Conn.

George J. Kelley was elected vice president-controller of Swank, Inc., Attleboro, Mass. . . . **Alfred O. P. Leubert** recently became vice president and treasurer as well as a director of his company, Old Town Corporation, Brooklyn, N. Y. . . . Frank G. Shattuck Company, New York, recently elected **Wesley W. Lang** treasurer.

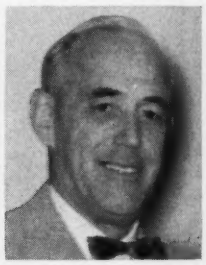
MR. BICKEL

MR. GIDDENS

MR. LEUBERT



MR. NELSON



MR. WALLIS

Carl E. Nelson has been named treasurer and controller of Union Steam Pump Company, Battle Creek, Mich. . . . **Theodore R. Peary** has been appointed controller of Ludlow Manufacturing & Sales Co., Needham Heights, Mass. . . . **William B. Peters** was recently elected vice president and treasurer of J. I. Case Company, Racine, Wis.

William R. Phelan is now vice president-treasurer of United States Fidelity & Guaranty Co., Baltimore, Md. . . . **Robert N. Wallis** was elected vice president and treasurer of Dennison Manufacturing Company, Framingham, Mass. Mr. Wallis is currently chairman of the Board of Directors of Controllers Institute and served as national president, 1955-56; he is also a trustee of Controllership Foundation, research arm of Controllers Institute. . . . **John C. Barrows,** comptroller, American Surety Co., New York, has moved up to vice president. . . . **Robert E. Kappauf** is now comptroller of New York Central Railroad, New York.

ADDITIONAL DUTIES FOR . . .

Edward G. Rider, who is now vice president as well as comptroller of Citizens National Trust & Savings Bank of Los Angeles, Calif. . . . **C. C. Herrmann** of Wisconsin Power & Light Company, Madison, Wis., who is now treasurer as well as vice president. . . . **Mason Smith,** vice president and treasurer, Whirlpool Corp., who has taken on the additional post of chairman of the Appliance Buyers Credit Corp., a finance company wholly owned by Whirlpool. . . . **C. Frederick Rogge,** comptroller Public Service Coordinated Transport, Newark, N. J., who has been made vice president and comptroller.

NEW APPOINTMENTS . . .

Edmund L. Grimes, president, Commercial Credit Company, Baltimore, Md., and a past national president of Controllers Institute of America, was recently appointed a trustee of Tax Foundation, New York.

COMPANY CHANGES . . .

Edwin F. Chinlund, former vice president of R. H. Macy & Co., Inc. and presently chairman of its finance committee, has been named chairman of a financial committee recently set up by Western Union Telegraph Co., New York. Mr. Chinlund was a charter member of Controllers Institute of America and is a director of Western Union. **Walter E. Pudney** has been named vice president of finance for Western Union. He had been an assistant vice president and assistant comptroller of the company. **Andrew L. Love,** formerly assistant comptroller, WU, has moved up to comptroller, suc-

CHANGING YOUR ADDRESS?

Notice of change of address for THE CONTROLLER should be received in the editorial offices of THE CONTROLLER, Two Park Avenue, New York 16, N. Y., before the first of the month to affect the following month's issue. For instance, if you desire the address changed for your July issue, we should be notified of your new address before June 1. *Be sure to include your postal zone as well as your old and new address.*

MR. HOYT

MR. HOLM

MR. BREWER

MR. PENNINGTON

MR. PEIRCE

ceeding **William R. Drummond,** vice president and comptroller, who retires after 50 years of service.

Fred F. Hoyt, vice president and treasurer, Carrier Corporation, Syracuse, N. Y., has become vice president in charge of long-range economic planning. **Melvin C. Holm,** vice president and comptroller, became chief financial officer and treasurer, succeeding Mr. Hoyt. **Leon C. Hutton,** formerly executive assistant to the comptroller, became comptroller.

NEW DIRECTORS . . .

Wendell S. Reid, controller of Wm. Wrigley, Jr. Company, Chicago, Ill., of his company. . . . **Thomas W. Dinlocker,** vice president and chairman of finance of SKF Industries, Inc., N. Philadelphia, Pa., of his company.

RETIREMENTS . . .

O. W. Brewer retired on April 30 as controller of American Gas Association, New York. Mr. Brewer was a charter member of Controllers Institute. He served as a national director and president of the New York City Control and was the Institute's national treasurer from 1932 through 1948.

HONORS TO . . .

H. Oscar Donner, a retired charter member of Controllers Institute of America, who has been elected to life membership in the New York Lodge No. 1, BPOE. . . . **J. Edward Greaves,** city comptroller of Orlando, Florida, who has been designated "Man of the Year" by the Orlando Chamber of Commerce.

EXTRACURRICULAR ACTIVITIES . . .

A. R. Seass, comptroller-treasurer, Hamilton Manufacturing Co., Two Rivers, Wis., served as vice chairman of the Committee on Revenue Sources which recently presented its report to the 1957 Wisconsin Legislature. The Committee was charged with studying the long-range financial needs of the State and its subdivisions to ascertain major sources of revenue available and present a definite program of tax policy to the Legislature. . . . **Gordon Fitzell,** assistant treasurer and controller of American Lava Corporation, Chattanooga, acted as moderator and **C. C. Lay,** treasurer and assistant secretary of the Wheland Company, Chattanooga, Tenn., as a member of a vocational guidance panel on "Opportunities in Accounting" at the University of Chattanooga on April 8. "Moving Up in Business—A Look at Managerial Accounting," Controllers Institute's career booklet, was distributed to interested students.

William J. Pennington, business manager and controller, *Seattle Times,* Seattle, Wash., was one of the speakers at the recent Western Regional Conference of the Institute of Newspaper Controllers and Finance Officers, of which he also served as general co-chairman. **Robert D. Young,** comptroller, the *Oregon Journal* of Portland, served as chairman of the Program Committee. . . . **Joseph Grimm, Jr.,** controller, Thiem Products, Inc., Milwaukee, Wis., served as discussion leader at a session on "Fundamentals of Budgeting" in connection with Workshop #13 at the University of Wisconsin's Industrial Management Institute on March 19.

Among those scheduled to participate in the forthcoming regional conventions of the National Association of Bank Auditors and Comptrollers are NABA President **Steve H. Bomar,** vice president and treasurer, Trust Company of Georgia, Atlanta; **Frank R. Amon,** vice president and comptroller, First National Bank of Arizona, Phoenix; **Lyall Barnhart,** vice president and comptroller, First National Bank and Trust Company, Oklahoma City; **Merle V. Stone,** vice president and comptroller, American National Bank, St. Paul, Minn.; **Hugh W. Fraser, Jr.,** vice president and comptroller, the Citizens and Southern National Bank, Atlanta, Ga.; and **G. Edward Cooper,** vice president, Philadelphia National Bank, Philadelphia, Pa.

Volney Pratt, vice president and comptroller, First National Bank of Portland, Oregon, will be one of the speakers at the forthcoming Western Conference of the National Association of Bank Auditors and Comptrollers in San Diego, California. His subject will be "Comptroller —Past, Present and Future.". . . Among those participating in the Tenth Annual Accounting Conference of the A. & M. College of Texas, April 29-30, were: **W. J. Crawford,** assistant comptroller, Humble Oil & Refining Co., Houston, Texas; **R. L. Ganter,** divisional comptroller, Delco Appliance Division, General Motors Corporation, Rochester, N. Y.; and **Lewis E. Frensley,** comptroller, Magnolia Petroleum Company, Dallas, Texas. Mr. Frensley is a national director and vice president of Controllers Institute. . . . **James L. Peirce,** vice president and controller, A. B. Dick Company, Chicago, Ill., will address the annual conference of the National Society for Business Budgeting, which will be held in Chicago, May 23-24. Mr. Peirce's subject will be "Control by Budget."

Obituary

ROWLAND R. HUGHES, 61, died recently at the Christian Science Benevolent Association Sanatorium in San Francisco. Mr. Hughes was one of the country's outstanding students of public finance. He had been associated with the National City Bank (now The First National City Bank) for 37 years when he was called to Washington in 1953 to serve as assistant director of the Bureau of the Budget; the newly created post of deputy director was given to him a few months later. In April 1954 Mr. Hughes became the Director of the Budget and served the Eisenhower Administration in that capacity until his resignation a year later.

Mr. Hughes was a member of Controllers Institute and served as chairman of its National Committee on Federal Taxation in 1952-53. He was active also as a member of the tax committees of the Foreign Trade Council and of the Council of the State Chamber of Commerce, as well as the American Bankers Association's committee on the excess profits tax.

Factors in Business Forecasting

CONSUMER BUYING POWER in the economy as a whole is the principal economic indicator used in business forecasting, according to an American Management Association survey. More of the companies included in the study—whether their products are consumer goods, industrial goods, or services—watch consumer buying power than any other single indicator. And most of the responding executives rank it even higher than trend figures in their own industries.

The results of the AMA study are reported in a research report entitled, "Company Organization for Economic Forecasting: Keeping Informed on the Business Outlook." It describes how chief executives of typical businesses keep informed on economic trends and also attempts to show how economic data may be used in practical business planning.

The report is based on a two-part study, a detailed mail survey of 56 company presidents and a more intensive study of forecasting activities in 31 additional firms. More than half the organizations covered in the presidents' survey are manufacturers of industrial goods; the others are divided equally between manufacturers of consumer goods and such service organizations as financial institutions, public utilities, and transportation companies. About a third of them have more than 2,500 employes; about a third have fewer than 1,000 employes.

The additional companies represented in the case study project are in a wide variety of businesses. Most of them are large firms with 10,000 or more employes and annual sales volumes of more than $100 million, selected because large companies are more likely to have staffs specifically assigned to business forecasting.

Almost all the presidents who replied to the survey depend heavily on trade publications and periodicals for information on business trends. However, in more than two fifths of the responding companies the job of forecasting is definitely assigned to staff personnel. This practice is more common in large companies than in small ones and in service firms than in manufacturing firms.

Preparation of business forecasts within the company is a relatively recent development. Most of the firms surveyed began to assign company personnel to prepare forecasts especially tailored to their needs within the past 12 years. In many of them, forecasting is not a full-time job; it entails primarily preparing digests of current economic data and predictions from sources outside the company. Nevertheless, the fact that someone is appointed to do it is evidence of a growing management interest in economic forecasting and a more conscious attempt to keep up with national economic trends and industry cycles.

The personnel assigned to forecasting most often report to general management rather than to heads of marketing, finance, or other functional departments. Often they report directly to the president.

Next to consumer buying power, the survey respondents give the most attention to trends in their own industries—purchases, sales volume, and the like. These figures, usually less expensive to gather than those on the entire consumer market, are particularly used by small companies and by industrial goods producers. Nearly as many firms, almost all of them industrial goods manufacturers, report that they study the business outlook of companies that buy from them. Population statistics also receive a great deal of attention.

The area in which the results of forecasts are most often used as a basis for management decisions is that of expansion—construction of new facilities, mergers, and acquisitions. Second most frequently mentioned is the closely related area of capital equipment purchases, both replacements and additions. Forecasts also affect company planning of budgets, production scheduling, financial programming, inventory levels, market expansion, product design, cash flow, size of work force, and investments. The chief value of forecasting, according to the companies included in the case-study part of the research project, is that it contributes to and stimulates coordinated executive planning.

The new AMA research report #28 is available to members of the Association at $2.00 a copy and to nonmembers at $3.00. Copies are available from the publications sales department, American Management Association, 1515 Broadway, New York 36, N. Y.

Consumer Study Shows Optimism

Most consumers see good times ahead, but the percentage who see a bright future is smaller than it was a year ago. People are planning major expenditures this year to approximately the same extent as they were at the same time in 1956. A smaller percentage plan to buy houses, but more plan to make home improvements or repairs, and to buy furniture, major appliances and used cars. There is no change in the percentage planning to buy new cars.

These are the findings of the Federal Reserve Board and the Survey Research Center of the University of Michigan in their 12th annual survey of consumer finances. The survey was made in January and February in 66 areas throughout the country covering some 3000 "spending units."

Other principal findings were:

More people are saving; 75 per cent reported some savings this year, against 73 per cent last year.

The people who plan to make major expenditures generally expect to lay out more money in the process than they did in 1956.

The percentage of those who think they are better off than a year ago is no different than the percentage who felt that way in the winter of 1956—40 per cent.

BLADES & MACAULAY

INSURANCE ADVISERS

★

Complete Surveys of
Corporate Insurance Affairs
No Insurance Sold

MArket 3-7801

744 BROAD STREET NEWARK 2, N. J.

Established 1926

Responsibility Auditing

(Continued from page 229)

ultimate responsibilities of as large a group of its employes as possible. In other words, a practical advance program of long-range job opportunities must be established as a framework in which employe selection and promotion will be carried on. Obviously, promotion practices must be tied in with practices governing pay and merit rating. Improper methods of recruiting, selecting, assigning and promoting employes can become a serious friction spot between employes and managers. Hence, an impartial examination of personnel practices in this respect should be helpful to management in synchronizing the human factors in enterprise with the physical factors.

It would seem axiomatic that each enterprise will have a well-planned and coordinated program for developing its employes. Dynamic enterprise in a competitive society depends on the efficiency and growth of the totality of people who operate it. Notwithstanding, an appalling number of concerns still rely on hit-or-miss methods of job experience and fragmented instruction as a means of developing personnel. Especially in this age of complicated machinery and complex techniques is management compelled to give serious consideration to the training and development of its workers. A manager who would leave this to the expediencies of the moment would be short sighted indeed.

A well-programmed combination of theoretical training and on-job experience should be worked out for each major functional activity in the enterprise. This plan should be developed within the framework of explicit company policy defining emphasis to be placed on over-all company operations, particular job skills, human relations, general business and economic education, and so on. There should also be a delineation of the broad media and methods to be used in training and development activities.

The training and development of employes is a continuous activity. Independent examination and review of this phase of employe relations should help management in assuring that to the extent practicable each employe is being constantly trained for and placed in the position or positions in which both he and the company will receive the maximum long-run benefits.

Finally, the enterprise's methods and media of communicating its objectives, plans, decisions, and orders to employes should be subjected to periodic scrutiny and appraisal. Much of this communication is accomplished by front-line supervisors who have the closest day-to-day contact with employes. Independent test checking should be made of the methods by which supervisors give orders or explain company policies to workers, of their methods of planning work and assigning job duties, and of the methods used by supervisors on job in instructing and developing their subordinates. Additional communication is achieved in many companies through manuals, house organs, and pamphlets. Spot testing of the extent to which employes have access to and use these media can aid management in concentrating on securing the most effective and economical combination of media for getting its message across to employes.

To summarize, management should surround itself with as many objective bases as possible to assure recurring audit of key potential trouble spots in its relations with employes. Employes who are satisfied with job opportunities are likely to be efficient producers. A combination of objective analysis of employe relations and mutual understanding and trust on the part of managers and workers can go a long way in insuring long-run productive life for an enterprise.

RESPONSIBILITY FOR GOOD BUSINESS CITIZENSHIP

The modern trend toward what has been widely termed "social control" of business (with emphasis on group interests as contrasted with individual interests) makes it imperative that present-day management overtly recognize and act upon its responsibility to society to conduct business enterprise as a good citizen. Business enterprise is but one agency of society, albeit an important one, to be used for the advancement of the social order as a whole.

Since business enterprise is the agency of society charged specifically with productive use of resources, the responsibility of management to operate its enterprise in a way to insure long-term profitability and growth becomes a first and dual obligation to specific suppliers of capital and to society at large.

Perhaps the second important phase of obligation to society is management's duty to adequately explain to the public the nature and functions of business enterprise in a modern industrially oriented society. With a vital stake in the private enterprise system, business management, with few exceptions, has not distinguished itself in explaining or defending this system. This is not to say that management must be charged with the full blame for defection in this respect. Other informed segments of society have likewise been derelict. But business management collectively is the most influential single force in society.

As mentioned earlier, it is axiomatic that the welfare of a society depends in

(Continued on page 260)

ADVERTISING INDEX

American Appraisal Company, The 206
American Foreign Insurance Association 255

Blades and Macaulay 258
Burroughs Corporation 241

Chase Manhattan Bank, The ..... Back Cover
Commerce Clearing House, Inc. ..... Inside Back Cover
Controllers Institute 237, 243
Controllership Foundation, Inc. 248

Felt & Tarrant Mfg. Co. 217
Filmsort (Dexter Folder Company) 253
Ford, Bacon & Davis 204
Friden Calculating Machine Co., Inc. ..... Inside Front Cover

Haloid Co., The 239

International Accountants Society, Inc. 201
International Systems Meeting, 1957 240

Lockwood Greene Engineers, Inc. 240

Marchant Calculators, Inc. 207
McCormick & Co. 240
Monroe Calculating Machine Co., Inc. 249
Moore Business Forms, Inc. 223

National Cash Register Co., The 205

Pandick Press, Inc. 235

Record Controls, Inc. 234
Recordak Corporation 231
Remington Rand 210, 221
Royal Typewriter Company 203

Standard Appraisal Co. 253
Statistical Tabulating Corp. 233
Sturgis Posture Chair Company, The 254

Traveletter Corporation 227

Underwood Corporation 208

★OPPORTUNITIES★

EMPLOYMENT • EQUIPMENT • MISCELLANEOUS

RATES: *$5.00 per inch or fraction thereof each insertion. 50¢ each additional line. Payable in advance. Allow approximately 40 words to the 1 column-wide inch including 2 words for box number. Closing date 10th of preceding month.*

Address box number replies to THE CONTROLLER, Two Park Avenue, New York 16, N. Y. Replies will be forwarded.

SITUATIONS WANTED

CONTROLLER OR ASSISTANT CONTROLLER

Experienced in wage incentive systems, punched card accounting and tabulating, internal audit and control, and the design, installation and supervision of modern procedures and methods. Skilled in job evaluation and the testing, recruiting, and training of accounting personnel. Capable of handling credit and collections, taxes, insurance, bank relations, and financing. Offers over 15 years' background in general and cost accounting, budgetary control, inventory control, office administration, and the preparation, analysis, and interpretation of financial statements. College educated, free to relocate, willing to travel, and available now. Box 2266.

CONTROLLER

Outstanding experience and record of accomplishments. Presently controller 1,000 employe corporation. Responsibilities: All accounting, budgets, forecasts, taxes, financial planning and analysis, and cost control. Previously budget director multiplant, multiproduct company. Harvard Business School MBA with distinction. Age 37. Reply Box 2267.

TREASURER-CONTROLLER

Eighteen years successful management of financing, accounting, financial statements, taxes, budgets, systems and controls, office and personnel management, government contract administration. College graduate. Will relocate. Box 2268.

INTERNAL AUDIT DIRECTOR OR ASSISTANT CONTROLLER

CPA, age 36, college graduate, wants to make career with progressive industrial corporation. Excellent diversified background. Fourteen years audit-accounting-tax experience in public accounting (national CPA firm) and corporation and federal government internal auditing. Box 2269.

CONTROLLER

Able administrator with heavy strength in management large office staff and control of accounting, fiscal affairs and taxes, systems-procedures cost, multiplant operation. Age 41. B.B.A. Married. Will relocate. Box 2270.

ACCOUNTANT

available to assist controllers on systems, procedures, internal control, inventory control, IBM operations. Will accept temporary or per diem position in New York, New Jersey, Connecticut and Pennsylvania areas. Box 2271.

NOTE: THE CONTROLLER *reserves the right to accept, reject or censor classified copy and takes no responsibility for the people contacted through this column nor does it guarantee any item bought or sold.*

Responsibility Auditing

(Continued from page 259)

large measure on the economic arrangements under which it lives. Yet a vast segment of the American public, judging by the results of public opinion polls, is unaware of the strengths and weaknesses of the private enterprise system. This void in informative alertness affords the enemies of the system their most persuasive weapons. Depending on emotion and abstract rhetoric, they attack, with some degree of success, the more obvious flaws in economic life under private enterprise.

If private enterprise as it now exists is to continue to receive the blessings of society, then the public must be adequately informed of the manifold benefits it derives from business operations under this system. Managements have always operated under changing physical conditions and changing ideas. In the circumstances, it behooves present managements to diligently search out new ways of examining the private enterprise system, of strengthening its weaknesses, remedying its injustices, and selecting new modes to convincingly express to the public the old ideals of individual efforts and rewards. It is quite apparent that management cannot win its audience by singing the old songs of slogans and catch phrases no matter how pleasing the sound.

A third phase of responsibility to the public is the obligation of management to see to it that its enterprise appropriately assists in the shaping of sound public policy. It is not enough for managers to participate in public policy through exercise of their voting privileges. Business managers have unique organizing, directing, and controlling talents. These should be offered whenever practicable for the welfare of all the people. If managers fail in this regard they run the risk of operating their enterprises under onerous or oppressive public policy which in the long run might sound the death knell of individual enterprise.

The creation, direction, and control of the multibillion dollar public activities of today is big business indeed. Managers of private enterprise have made considerable advancement over their counterparts of publicly owned enterprise in the refinement of management philosophy and in devising and sharpening the tools of management control. Wise business managers, in their enlightened self-interest, will put forth the extra effort of advising, counselling, and even serving in temporary direct management capacities to help shape public policies and develop public administration under which all segments of society will have an equitable chance to grow and prosper.

In summary, business management because of its position and power in society has an obligation to operate its enterprise in the best long-run interests of the public at large. Part of this responsibility is discharged through profitable long-term business operations. Another part is accomplished through objective explanation of the role and nature of the benefits conferred on society by business enterprise. Assistance and counsel in the making of public policy and in public administration is another facet of discharge of the over-all responsibility to the public. Still another, not developed in this paper, is contribution by business enterprise to other institutions in society such as schools, religious organizations, foundations and research organizations, hospitals, etc. These contributions can take the form of funds or services or both. If business managers appropriately prepare for acceptance and consummation of their obligations to the public at large they will have taken a long forward step toward insuring an environment in which economic activities can be continuously carried on in a form that serves the greatest needs of a progressive society.

CONCLUSION

The implications of modern enterprise for society are so comprehensive that the decisions made by managers of individual businesses can reach far beyond the immediate vicinity of the particular business units. Each business management has an over-all responsibility to make its enterprise a good community of people and property, responsive to efficient fulfillment of the needs of diverse elements in society. The major groups affected are: (1) Suppliers of capital, (2) consumers, (3) employes, and (4) the general public.

This paper has highlighted the nature and content of management responsibility to each of the above-mentioned groups. There are, of course, reciprocal and cross-responsibilities involved but discussion of these is not within the purview of development of the subject. In addition, there has been presented the framework of a pattern or approach whereby business management through planned periodic internal and external audit of its major responsibilities can help assure its enterprise of long-range productive and profitable operation.

Ability to foresee economic, social, political, and technological change and to constructively adapt its enterprise to a changing environment are hallmarks of efficient management. Management acumen and strength are doubtless the strongest requisites of successful enterprise.

A well-planned and executed objective audit of management's preparation for the control over the accomplishment of its major obligations can aid immeasurably in insuring that the enterprise will be continuously controlled by the deliberate planning and decisions of management and will not find itself through default subjected to decisions imposed from outside.